Nevada-Yuba-Placer

Fire Management Plan 2004

Managing Nevada, Yuba, and Placer Counties fire problem through engineering, education, and law enforcement.

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Unit Chief Summary

Overview

This Fire Management Plan is a product of the implementation of the State Fire Plan. The State Fire Plan provides an analysis procedure utilizing, in part, computer based geographical information data that is validated by experienced fire managers to assess fire fuel hazards and risks in order to design and implement mitigating activities. The Nevada-Yuba-Placer Unit (NYP) Fire Management Plan provides background information, fuels and fire data, proposed projects, and individual Battalion reports outlining mitigating activities commonly carried out each year.

NYP is one of 21 administrative Units within the California Department of Forestry and Fire Protection. NYP faces many challenges, not the least of which is two of its counties, Placer and Nevada, are two of the fastest growing counties within the state. According to the 2000 National Census, Placer County is the 20th fastest growing county within the nation. Many of the people moving to these mid Sierra Nevada rural counties are coming from urban areas such as the San Francisco Bay, Los Angeles, and Sacramento. This has directly led to the urbanization of fire adapted vegetation types and ecosystems.

The biggest challenge facing NYP is one of education. Most of the new residents, and many of the existing ones, do not realize what building houses in the middle of fire adapted ecosystems means. The fire adapted forest types where most of the population exists within NYP are Mixed Conifer, Ponderosa/Shrub, Montane Chaparral, and California Oak Woodlands. According to research from Barbour and Majors (1977), pre-European settlement fire return intervals in these forest types ranged from 2 to 8 years in California Oak Woodlands and 5 to 16 years in the remaining forest types. This equated to low intensity fires at frequent intervals. As of 1900 to 1920, wildfires have been suppressed in these vegetation types. As a result, over the last 80 - 100 years vegetative fuels have increased significantly in tons per acre. Unnaturally high fuel loads have resulted. But, most of the public does not realize this, nor do they understand what this means in terms of fire intensity and their safety. They have come to believe what they see now is "natural." Wildfires in this unnatural fuel load condition are very intense and more difficult to suppress. Overlay the mix of homes and personal property in these areas and suppression is even more difficult. The task at hand is to educate the citizens within these areas as to the dangers of living in these fuels and to induce the public into taking an active role in becoming an informed and appropriate land steward and taking it upon themselves to manage the fuels around their structures. Creating "defensible space" around these structures is the single best thing a resident can accomplish to protect their property. Secondary to the effort of creating the defensible space around their homes is a landowner's responsibility to apply his or her stewardship responsibility across their entire ownership. The overall effect of each property owner properly managing wildland fuels results in a landscape level fuel reduction and a commensurate reduction in fire intensity. Once this is achieved, the goal of reducing costs and losses to human lives, property and natural resources will be reached.

Prefire Management Development

Since the implementation of the State Fire Plan in 1996 and its evolution into the NYP Fire Management Plan, interest by local community based groups (stakeholders) has resulted in a groundswell of grassroots organizations developing in an effort to promote community safety. These groups, including the American River Watershed Group, Tahoe Re-Green, FireSafe Council of Nevada County, Placer County Fire Safe Alliance, and the Yuba County FireSafe and Watershed Council have taken the lead in promoting fire safe activities. Through these groups, and our own NYP CDF personnel, we have a number of fuel reduction projects, either completed or in various levels of completion throughout the Unit. Hopefully we will never have the opportunity to put these projects to the test; however, it is more than likely that one of these projects will help reduce the overall government costs and citizen losses resulting from a costly and damaging fire. We continuously encounter new obstacles in the project implementation stage: agency spending procedures, grant requirements, environmental documentation, etc… However, through the continued effort of our CDF staff and the other stakeholders, fuel reduction and education projects will continue.

Goals and Objectives

The Nevada-Yuba-Placer Unit took the stated goals and objectives of the State Fire Plan and applied them to the Unit. They are:

Goals:

1. To Reduce the Risks to Citizens and Firefighters from Wildland Fire.

2. Develop a “land stewardship” ethic in the residents of the wildland areas within the Unit

Objectives:

1. Implement Specific and Landscape Level Projects and Programs that Increase the Potential for Success on Initial Attack.
2. Raise Citizen and Stakeholder Awareness of Fire Risks and Hazards and enlist their help and participation in the Reduction of Risks and Hazards.
3. Create a Fire Mitigation Framework to assist local government in the development of standards, policies, and plans which will result in community and landscape level fuel modifications.

An undertaking of this sort is more than a single agency can accomplish alone. For this reason, stakeholder involvement was encouraged early on and has become an integral part of the process. We immediately recognized that NYP could develop some very sophisticated and efficient projects; but without the help of other stakeholders the projects would never get past the planning stage. NYP considers the task of meeting these objectives as a collective assignment for all stakeholders within the Unit. The State Fire Plan was designed with the intent of local fire safe problems being solved by local entities. NYP is available for assistance to these local entities by providing data, guidance, technical support, and standards.

Recommendations

NYP has found that the most effective method of spreading fire prevention information to educate the public is to make personal "one-on one" contact with the public. It is the Unit's view that the single most effective method to protect personal and real property from wildland fires is for each individual landowner or resident to meet the mandates of Public Resources Code 4291 (defensible space standards –see Appendix 4). NYP also encourages the public to extend hazardous fuel reduction beyond the PRC mandated defensible zone into the adjacent "Defensible Landscape" zone. This is the area outside the defensible space zone where a property owner can reduce fuels to a lesser degree than the defensible space zone but effectively add to the protection of the property (defensible landscape standards – see Appendix 4). It is the Unit's recommendation for its cooperating stakeholders that do not own or manage large tracts of wildland direct their efforts as follows:

1. Direct 85% of their effort to defensible space and defensible landscape: produce and provide fire safe information to landowners; conduct informational workshops; conduct one-on-one meetings with landowners providing individualized fire safe guidance; support a citizen or public chipper crew/assistance; outreach to homeowner associations, etc; develop a property addressing program.

2. Direct 10% of their effort to Ingress/Egress issues: Identify and prioritize evacuation problem areas; when appropriate, encourage roadside fuel modification and maintenance; as needed, develop signage for exit routes.

3. Direct 5% of their effort to Strategic Fuel Modification outside the defensible space zone: construction of new shaded fuel breaks only if continuous maintenance is also funded; maintenance of existing fuel breaks; large scale vegetation management projects. Large scale vegetation management projects will normally only be completed by entities charged with managing large areas of wildland such as the Bureau of Land Management, US Forest Service, CDF, timber companies, and large ranches.

NYP particularly recommends that the target areas for fuel reduction and education projects be within the High and Very High Fuels Hazard rating areas mapped out in this Fire Management Plan (see fuels section). The Unit also seeks to treat large amounts of wildland acreage throughout the Unit's intermix and interface (I-Zone) areas in high hazard locations. However, adequate Unit funds and staff are not currently available to attain this. If funds and/or staff were to become available, the Unit would target I-Zone areas and landscape scale wildland areas that threaten the I-Zone for fuel modification.

Re-evaluation

As project implementation continues, NYP will continue to re-evaluate the Unit using the prefire planning process to determine if attention should be refocused to new project areas or continue with those currently identified. Whenever a fire occurs in or around a project area, we will evaluate the success of any completed project work to determine its effectiveness in protecting the assets in the area.

Pre-Fire Management Plan Process Summary

Nevada-Yuba-Placer Unit (NYP) personnel have prepared this document as a plan to implement California's Board of Forestry's 1995 Fire Plan within the unit. NYP was the first unit in the state to draft a plan based on the guidelines set forth in the 1995 Fire Plan. The 1995 Fire Plan was a major departure from the previous Fire Plans as it was founded on a computer based geographical information system to aid in the analysis of the fire hazard within the unit. The acquisition of new data and new computer tools and programs will require re-analysis and changes as time goes on. This plan is limited to the CDF direct protection area within the unit. Subsequent analysis and plan changes may incorporate all of the lands within the Nevada-Yuba-Placer Unit.

The 1995 Fire Plan's goal is to reduce total government costs and citizen losses from wildland fire in California by protecting assets at risk through focused prefire management prescriptions and increasing initial attack success. The desired result of implementation of the Fire Plan is increased public safety, both to citizens and firefighters, reduced damage to assets, and reduced costs of suppression. This supports CDF's mission to "…protect the people of California from fires, respond to emergencies, and protect and enhance forest, range, and watershed values providing social, economic, and environmental benefits to rural and urban citizens." The term "wildland" refers to any area that may be affected by an uncontrolled fire. Uncontrolled fire is defined in Public Resources Code 4104 as "any fire which threatens to destroy life, property, or resources and either: is unattended by any person; is attended by persons unable to prevent its unrestricted spread; or is burning with such velocity or intensity that it could not be readily controlled with those ordinary tools available to private persons at the fire scene." Public Resources Code 4103 also defines forest fire, commonly referred to as wildfire, wildland fire, or vegetation fire, as "a fire burning uncontrolled on lands covered with wholly or in part by timber, brush, grass, grain, or other flammable vegetation."

The basic framework of the Fire Plan is to assess the fire weather severity, assets at risk, fuels hazard, and the level of service that is provided for a given area to aid in considering where prefire prescriptions will reduce the potential of a costly and damaging fire. A costly and damaging fire results in unacceptable cost and loss verses those fires that are successfully suppressed during initial attack (see Appendix A). Once the areas that represent high hazard (based on fuel condition, fire weather severity, and level of service) and high value (based on numbers of assets) are targeted, prefire prescriptions are designed to reduce the potential of a costly and damaging fire. These prefire prescriptions can be any activity, particularly any one within a CDF program. The prescriptions may include fuel management projects, such as prescribed burns, fuel breaks, thinning, etc., to inspection or educational programs.

During the data collection and validation phase, input was solicited and invited from interested parties, called stakeholders, regarding assets (see Appendix 5). Stakeholders may be other government agencies, private landowners, service groups, or homeowner associations. It is a desire of the Fire Plan that those who benefit from the protection of an asset should also share in

cost for that protection. Thus, asset stakeholders may be expected to provide financial support for the projects that provide significant benefits to their assets at risk. A cost share formula may be developed for multiple benefactors of a particular project. NYP has a number of ongoing projects throughout the Unit. Due to limited CDF resources, we have been utilizing the talents of the various Fire Safe Councils to carry the message to and gather input from the stakeholder groups. Through the efforts of the Fire Safe Councils, project funding has been accomplished without adversely affecting our CDF budget. We have found that our Fire Plan data has been invaluable for presenting the problem to the stakeholders and we continue to make every effort to provide the Fire Safe Councils and others with the latest, validated data.

NYP – Prefire Planning Process

The assessment process is completed by the Unit's Prefire Planning and Vegetation Management staff. They then provide the results to local Battalion Chiefs who work with the stakeholders in their battalions to develop projects designed to mitigate the hazards and protect the assets in the areas beginning with those rated as having the highest potential to experience a costly and damaging fire. The group then works cooperatively to establish funding sources to implement the project. Projects are designed to tie into and enhance existing programs where possible.

1 Stakeholders

Following is a list of stakeholders that were contacted.

1.1 PLACER COUNTY LOCAL GOVERNMENT:

- Board of Supervisors
- Agriculture Commissioner
- County Executive Officer
- Placer County Air Quality Management District
- Office of Emergency Services
- Planning Department
- Placer County Water Agency
- Placer County RCD
- Tahoe RCD
- Placer County Fire Chiefs Association
- Northstar CSD (CSA21)

1.2 NEVADA COUNTY LOCAL GOVERNMENT

- Agriculture Commissioner
- Nevada Irrigation District
- Northern Sierra Air Quality Management District
- Nevada County RCD
- Planning Department
- Board of Supervisors
- UC Cooperative Extension
- Nevada County Fire Chiefs Association

1.3 YUBA COUNTY LOCAL GOVERNMENT:

- Planning & Building Services
- Yuba County Water Agency
- Feather River Air Quality Management District
- Agricultural Commissioner
- UC Cooperative Extension
- Yuba County RCD
- Yuba County Fire Chiefs Association

1.4 LOCAL INTEREST GROUPS:

- Sierra Economics Development District
- A.R. Associates
- American River Watershed Group
- Sierra Pacific Industries
- Ca. Cattlemen's Association
- Nevada County Farm Bureau
- Placer County Museum
- Ca. Oak Foundation
- PG&E Land Services
- Protect American River Canyon (P.A.R.C.)
- Fiber Board
- Sierra Front Wildfire Cooperators
- Lake Tahoe Regional Fire Chiefs Association
- Fire Safe Council of Nevada County
- Yuba Watershed and Fire Safe Council
- Placer County Fire Alliance

1.5 STATE OF CALIFORNIA:

- Caltrans
- Ca. Dept. of Fish & Game
- Ca. Office of Historic Preservation
- State Water Resources Control Board
- Resources Agency
- Lahontan RWQCB
- State Fire Marshall
- Ca. Department of Parks & Recreation
- UC Cooperative Extension (Specialist, Valley Oaks & Burning)

1.6 UNITED STATES GOVERNMENT:

- Tahoe National Forest
- Lake Tahoe Basin Management Unit
- Eldorado National Forest
- Nevada County Conservation District
- Placer County Conservation District
- Yuba County Conservation District
- Fish & Wildlife Habitat Conservation

1.7 Stakeholders Comments

The stakeholder meetings were initially conducted for focused groups of stakeholders. The reasoning was that the meetings would be more productive without having to deal with a wide range of conflicting interests. As the meetings progressed it became evident that everybody's primary concern was how to protect the Assets at Risk from a costly and damaging fire. Most stakeholders were interested in the development and application of the assessment system. Relatively few suggested any changes to the system, however, quite a few did have information on data missing from asset data (see Appendix 5). Their input was included in later versions of the assessment.

Stakeholders generally agreed with the assessment system outlined in the Fire Plan. They all supported CDF's effort to identify those areas with high fire hazards that were most at risk to a costly damaging and fire. Individually, though, they were particularly interested in the protection of their specific asset(s) of concern. They supported the concept of prefire projects to reduce the potential of a costly and damaging fire but not at the expense of their asset(s) of concern.

Assets at Risk

The various assets were each mapped for their potential to risk as the result of a costly and damaging fire. The criteria for setting the breakpoints can be found in Appendix 1 and the individual maps are available in Appendix 2.

2 NEVADA-YUBA-PLACER 2003 PREFIRE MANAGEMENT PLAN

2.1 Introduction

In 1995, the State Board of Forestry and the California Department of Forestry and Fire Protection drafted a comprehensive update of the fire plan for wildland fire protection in California. The planning process defines a level of service measurement, considers assets at risk, incorporates the cooperative interdependent relationships of wildland fire protection providers, provides for public stakeholder involvement, and creates a fiscal framework for policy analysis. The final version was approved June 3, 1996, and implemented in the Nevada-Yuba-Placer Unit. This unit was the first in the state to utilize the new Fire Plan.

The overall goal of the Fire Plan is to reduce total government costs and citizen's losses from wildland fire in California by protecting assets at risk through focused prefire management prescriptions and increasing initial attack success. The 1995 Fire Plan has five strategic objectives:

1. To create wildfire protection zones that reduces the risks to citizens and fire fighters.

2. To assess all wildland, not just the state responsibility areas. Analyses will include all wildland fire service providers – federal, state, local government, and private. The analysis will identify high risk, high value areas, and develop information on and determine who is responsible, who is responding, and who is paying for wildland fire emergencies.

3. To identify and analyze key policy issues and develop recommendations for changes in public policy. Analysis will include alternatives to reduce total costs and/or increase fire protection system effectiveness.

4. To have a strong fiscal policy focus and describe the wildland fire protection system in fiscal terms. This will include all public and private expenditures and economic losses.

5. To translate the analysis into public policy.

Five major components form the basis of an ongoing fire planning process to monitor and assess California's wildland fire environment. These components are:

1. **Wildfire Protection Zones**. A key product of this Fire Plan is the development of wildfire safety zones to reduce citizen and firefighter risks from costly and damaging fires.

2. **Initial Attack Success**. The fire plan defines an assessment process for measuring the level of service provided by the fire protection system for wildland fire. This measure can be used to assess the department's ability to provide an equal level of protection to lands of similar type, as required by Public Resources Code 4130. This measurement is the percentage of fires that are successfully controlled before unacceptable costs are incurred. Knowledge of the level of service will help define the risk to wildfire damage faced by public and private assets in the wildlands.

3. **Assets Protected**. The plan has established a methodology for defining assets protected and their degree of risk from wildfire. The assets addressed in the plan are citizen and firefighter safety, watersheds and water, timber, wildlife and habitat (including rare and endangered species), unique areas (scenic, cultural, and historic), recreation, range, structures, and air quality. Stakeholders – national, state, local, and private agencies, interest groups, etc.—were identified for each asset at risk. The assessment defined the areas where assets are at risk from wildfire, enabling fire service managers and stakeholders to set priorities for prefire management project work.

4. **Prefire Management**. This aspect focuses on system analysis methods that assess alternatives to protect assets from unacceptable risk of wildland fire damage. Projects include a combination of fuels reduction, ignition management, fire-safe engineering activities, and forest health to protect public and private assets. The priority of projects is based on asset owners and other stakeholder's input and support. Prefire management prescriptions designed to protect these assets also identify who benefits and who shares in project costs.

5. **Fiscal Framework**. The Board of Forestry and CDF are developing a fiscal framework for assessing and monitoring annual and long-term changes in California's wildland fire protection systems. State, local, and federal wildland fire protection agencies, along with the private sector, have evolved into an interdependent system of prefire management and suppression forces. As a result, changes to budgeted levels of service of any of the entities directly affect the others and the services delivered to the public. Monitoring system changes through this fiscal framework will allow the board and CDF to address public policy issues that maximize the efficiency of local, state, and federal firefighting resources.

These are Fire Plan applications:

- Identify for state, federal, and local officials and for the public those areas of concentrated assets and high risk.
- Allow CDF to create a more efficient fire protection system focused on meaningful solutions for identified problem areas.
- Give citizens an opportunity to identify public and private assets and designing and carrying out projects to protect those assets.
- Identify, before fires start, where cost-effective prefire management investments can be made to reduce taxpayer costs and citizens losses from wildfire.
- Encourage an integrated intergovernmental approach to reducing costs and losses.
- Enable policy makers and the public to focus on what can be done to reduce future costs and losses from wildfires.

The Fire Plan includes a new framework for a systematic assessment of the existing levels of wildland protection services. It identifies high-risk and high-value areas that are potential locations for costly and damaging fires, ranks the areas in terms of priority needs, and prescribes what can be done to reduce the future costs and losses. This assessment system has four major components:

1. Level of Service

2. Assets at Risk

3. Fuels

4. Fire Weather

Each of these components is described later in this document.

3 General Description of Planning Area

3.1 Geographic Location

The Nevada-Yuba-Placer Unit (NYP) is located in mid California, along the east side of the state. The Unit encompasses all of Nevada, Yuba, Placer, Sierra, and Sutter counties. California Department of Forestry and Fire Protection (CDF) direct protection areas (DPA) lie only within Nevada, Yuba, and Placer counties. The area under direct protection by CDF within the unit is approximately 875,000 acres. Total state responsibility area (SRA) acreage within the unit is approximately 1,200,000 acres.

3.2 Social Setting

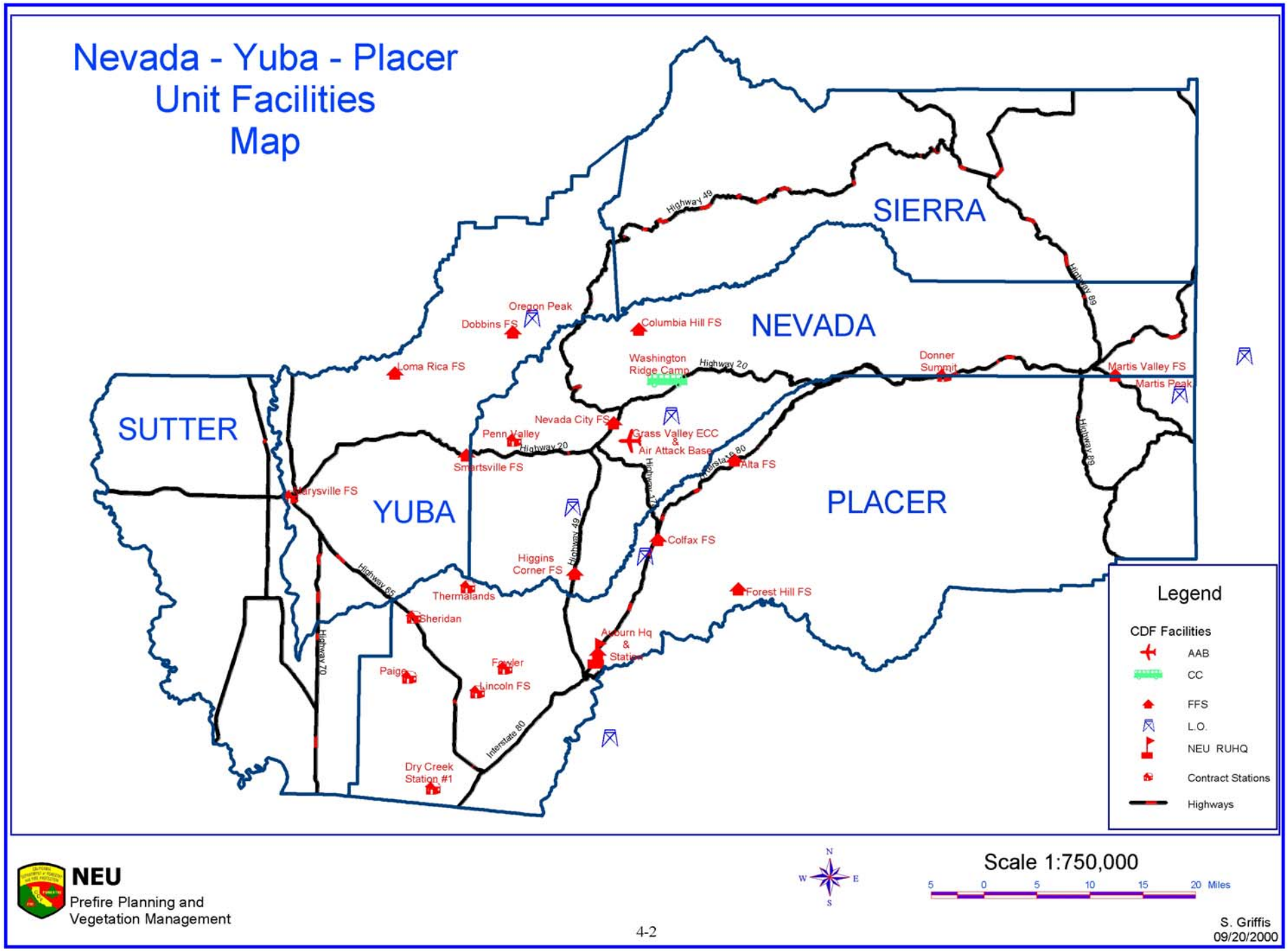
The population within the CDF direct protection area of NYP is approximately 166,000. The Nevada County population within that area is 74,000, Yuba County is 26,000, and Placer County is 66,000. Due to the desire of citizens to move from urbanized areas to rural type locations within the Unit, population growth trends have increased in the past and will continue upward. Placer County remains the fastest growing county in California. Even though rural development continues, parcel sizes remain large enough to leave a significant wild fire threat. The major population centers within the Unit are the towns of Auburn, Roseville, Rocklin, Colfax, Lincoln, Nevada City, Grass Valley, Truckee, Marysville, Yuba City, Lake Wildwood, Lake of the Pines, and Alta Sierra.

3.3 General Description of the Current Fire Problem

Physical Description of Environmental Conditions

NYP encompasses a diverse set of environmental settings. The west side of the Unit starts within the agricultural grasslands of the Sacramento Valley. Moving eastward, the terrain changes to foothills covered with gray pine, brush, and oak. Next, moving up the Sierra Nevada, mixed conifer and black oak stands with a heavy brush understory exists in the mid elevations. True fir stands dominate the upper elevations to the Sierra summit. East of the summit, Jeffrey pine and sage brush are prevalent along with true fir and lodgepole pine.

The major drainages within the unit are the American, Bear, Yuba, and Truckee Rivers. The Lake Tahoe Basin lies within the eastern boundary of NYP. Many lakes are within the unit along with a varied age of vegetation. A mix of young growth and mature timber stands exist throughout the unit. The various mature stands primarily exist along the drainage bottoms and in inaccessible locations. Brush stands dominate numerous locations, mainly along the lower elevations of the major drainages and in areas previously burned by wildfire.


Nevada - Yuba - Placer
Unit Facilities
Map
SIERRA
NEVADA
PLACER
YUBA
SUTTER
Oregon Peak
Dobbins FS
Columbia Hill FS
Loma Rica FS
Washington
Ridge Camp
Donner
Summit
Martis Valley FS
Martis Peak
Nevada City FS
Grass Valley ECC
&
Air Attack Base
Penn Valley
Smartsville FS
Alta FS
Marysville FS
Colfax FS
Higgins
Corner FS
Thermalands
Forest Hill FS
Sheridan
Auburn Hq
&
Station
Fowler
Paige
Lincoln FS
Dry Creek
Station #1
Highway 49
Highway 20
Highway 89
Highway 65
Highway 70
Interstate 80
Legend
CDF Facilities
AAB
CC
FFS
L.O.
NEU RUHQ
Contract Stations
Highways
NEU
Prefire Planning and
Vegetation Management
N
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Scale 1:750,000
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S. Griffis
09/20/2000

4 Ignition Workload Assessment (Level of Service)

The legislature has charged the Board of Forestry and California Department of Forestry with delivering a fire protection system that provides an equal level of protection to lands of similar type (PRC 4130). To do this, the department has developed an analysis process that defines a level of service rating that can be applied to the wildland areas in California to compare the level of fire protection being provided. The rating is expressed as the percentage of fires that are successfully extinguished during initial attack. Success is defined as those fires that are controlled before unacceptable damage and cost are incurred**.**

Successful initial attack is defined in terms of the amount of resources needed to suppress the fire and of fire intensity. It is that effort which contains the fire within an acceptable level of resource commitment, acceptable suppression cost and acceptable damage to assets at risk. The **FIRE PLAN** uses a Geographic Information System (GIS) that overlay a 10-year history of wildfires onto a vegetation type map and derives the average annual number of fires by size, severity of burning and assets lost. This data allows a **LEVEL OF SERVICE** Success (and failure) Rate calculation.

$$\text{SUCCESS RATE} = \frac{\text{annual number of fires that were small and extinguished by initial attack}}{\text{total number of fires}}$$

SUCCESS RATE= X PERCENT
This results in an initial attack success rate in percentage of fires by vegetation type and by area. Similar areas can be compared locally, regionally or statewide using the GIS database.

Using the GIS database, each wildland area of a community, CDF Unit, region or statewide, can be ranked by age and type of vegetation to identify high-volume fuel areas that have accumulations of dead fuel with the potential for costly and damaging fires. Areas are ranked by high, medium or low risk of potential as sites of costly and damaging fires.

4.1 STATEMENT OF SUCCESS RATE BY PLANNING BELT

The following is the success rate per planning belt within the Nevada-Yuba-Placer Unit over a ten year period:

Grass	=	95%
Brush	=	98%
Woodland	=	99%
Interior Conifer	=	98%

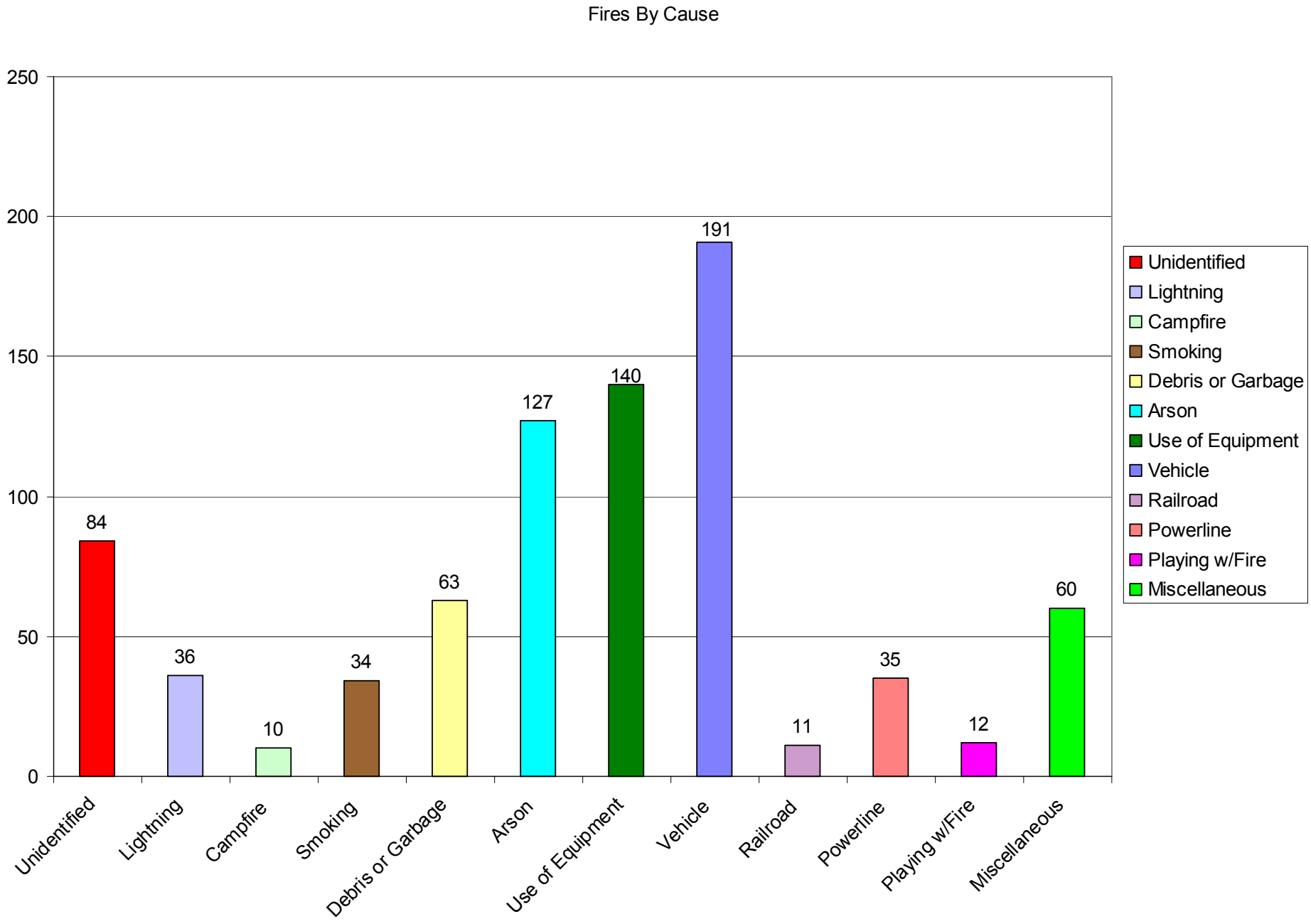
While these success rates are high for the unit, it still should not overshadow that the 1 fire in 100 that becomes an unacceptable fire may be a costly and damaging fire (49'er Fire, 1988, for example) and may cause extreme loss in terms of safety, assets and costs. In addition, the percentages above reflect the LOS success inclusive of all agency resources also. This includes all 45 local government fire districts, US Forest Service, and 5 state agencies. The percentages DO NOT show the LOS success rate of NYP CDF resources only.

The following matrix shows the number of fires NYP responded to in 2003, and the resultant success per planning belt and statistically, the number of "unacceptable" fires per planning belt:

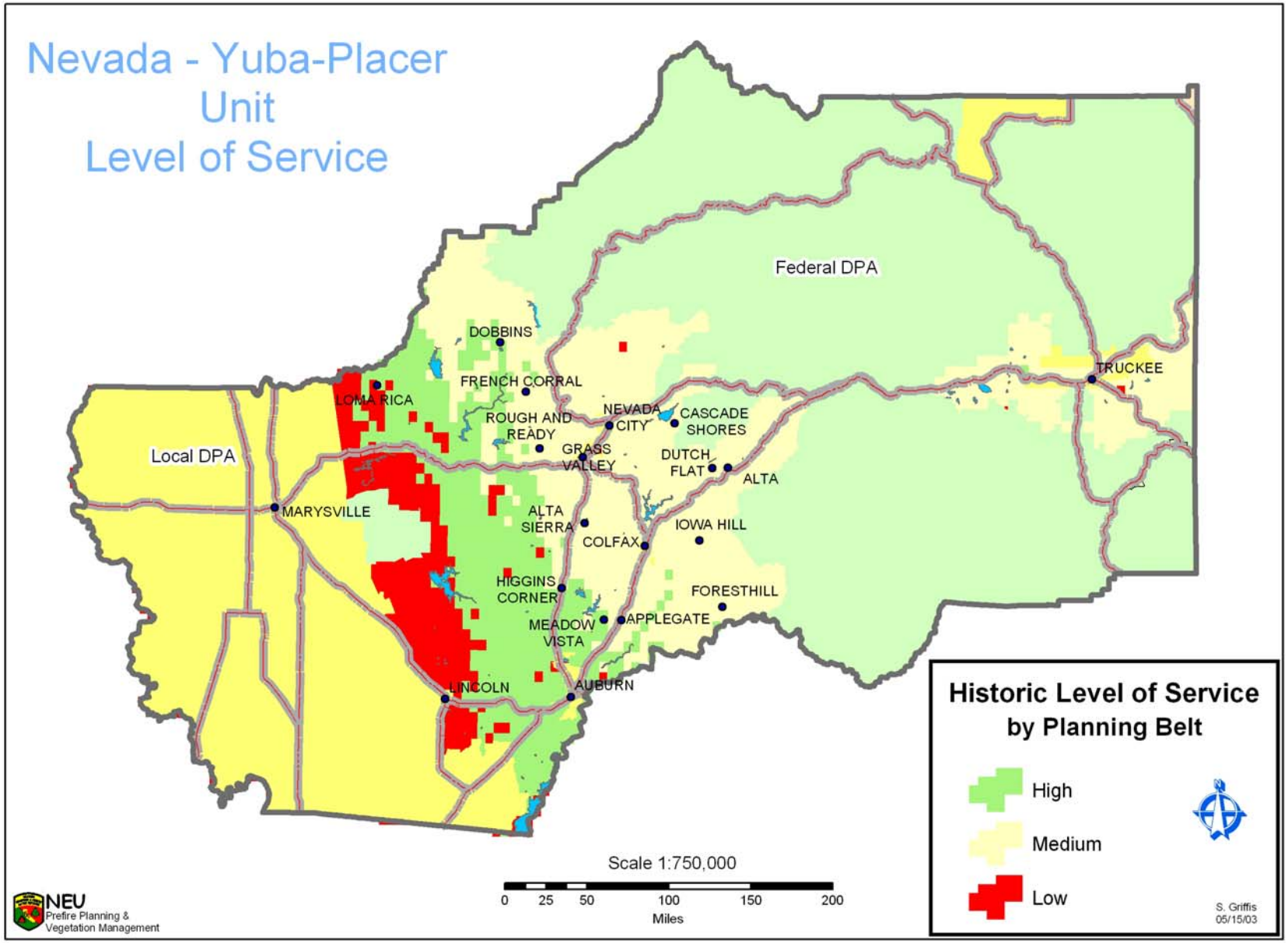
Planning Belt	LOS	Number of Fires	Unacceptable Fires
Grass	99%	87	1
Brush	100%	76	0
Woodland	87%	134	1
Interior Conifer	95%	55	3
Not Classified	96%	75	3
Totals		764	8

2003 Unit-wide Percent of Fires by cause type.

(Statistical information provided by NYP Fire Prevention Bureau and may not correlate with EARS data.)



This map graphically shows the level of service for the unit within the CDF DPA.



5 ASSETS AT RISK

The primary goal of fire protection in California is to safeguard the wide range of assets found across wildland areas. These assets include life and safety, structures, range, recreation, hydroelectric power, fire-flood watersheds, soil erosion, water storage, water supply, scenic, timber, air quality, historic buildings, non-game wildlife, game wildlife and infrastructure.

Knowledge of the types and magnitudes of assets at risk to wildfire, as well as their locations, is critical to fire protection planning. Given the limits on fire protection resources, these resources should be allocated, at least in part, based on the value of the assets at risk. Knowledge of assets at risk is also necessary to choose those prefire management projects, which will provide the greatest benefit for a given amount of investment. For the department, the primary concerns regarding prefire projects is the reduction of suppression costs and reducing the fire risk faced by the various assets described here.

Thus, as part of the overall fire plan process, assets were addressed at two levels. First, generalized assets at risk were estimated within the Nevada-Yuba-Placer Unit to indicate what areas contain highly valued assets. Including the participation of stakeholders in the various assets refined these assessments. The areas with the highest combined asset values and fire risk were considered for prefire management projects, particularly where those projects would protect assets and reduce suppression costs should a fire start in the project area during high fire hazard weather. Second, as potential projects were identified in these areas, they were subjected to an analysis of the degree to which the projects will reduce damage to assets and potential suppression costs.

The process of quantifying the assets at risk also helps to identify who benefits from those assets. It is a desire of the fire plan that those who benefit from the protection of an asset should share in cost for that protection. Thus, asset stakeholders may be expected to provide some financial support for the projects that provide significant benefits to their assets at risk. Many projects may have several stakeholders that will benefit and a cost share formula will be part of the development of such projects. The various assets were mapped for their potential to risk as a result of a costly and damaging fire. Each of these maps is available in Appendix 2.

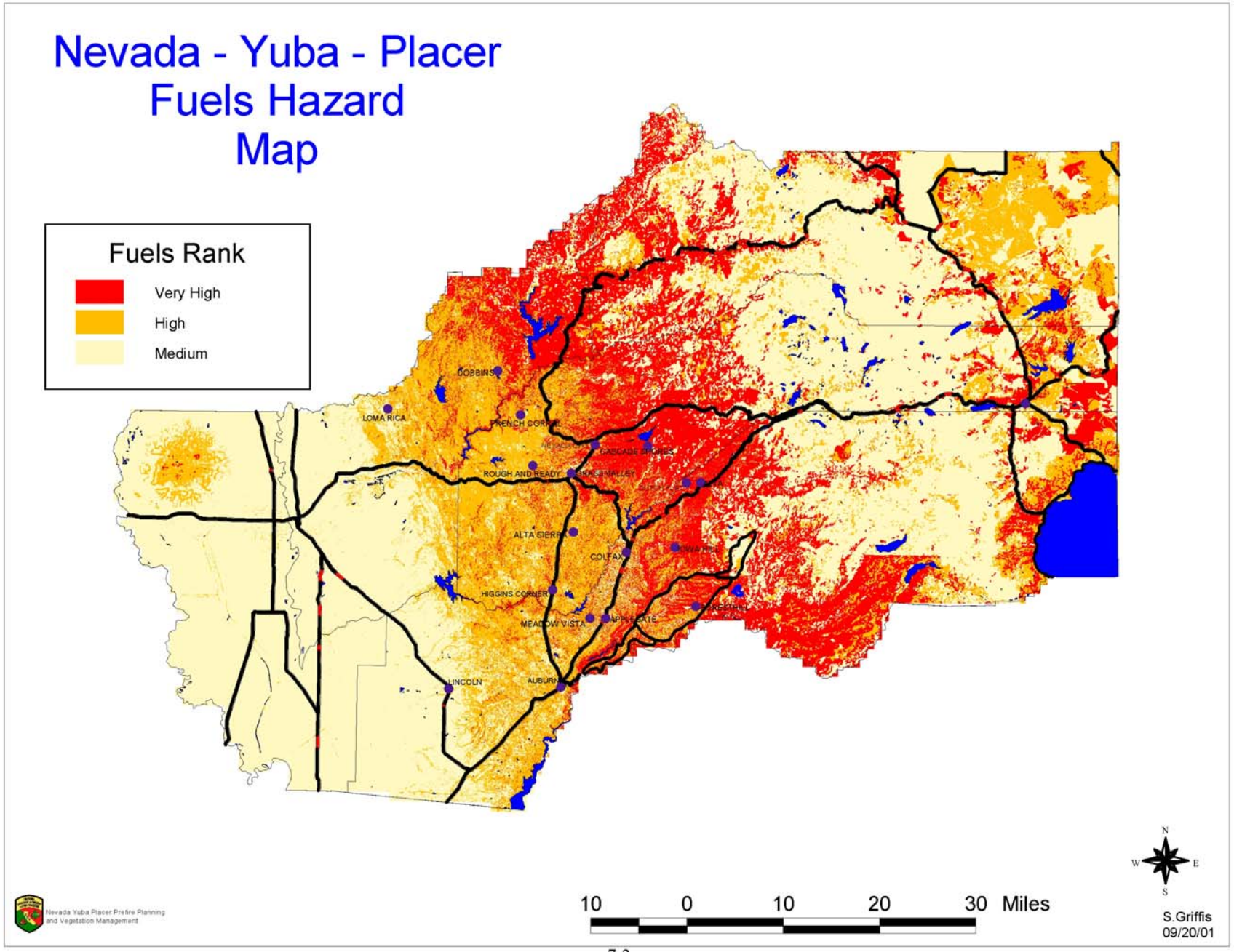
6 FUELS

As described earlier in this document, the vegetation within the Nevada-Yuba-Placer Unit is quite varied. The general vegetation types include grassland, oak woodland, mixed conifer, true fir, and brush. The Fire Plan assessment process includes fuels as a major component. The hazardous condition of these fuels was determined by examining the detailed fuels and fire history data layers using GIS and field validation. The hazardous fuels rank was developed using the following methodology.

The hazardous fuels ranking system is based on estimates of potential fire behavior associated with the particular fuel type; and as such, have a direct relationship to the characteristic fire supported by these fuels. The fuel rank is an integrated index of fire behavior characteristics – rate of spread, fireline intensity, heat per unit area, etc. – that are a result of that fuel complex burning under a particular set of weather conditions. The intent is to provide a basic means of stratifying the landscape into areas of moderate, high, and very high hazard as it is related to fire behavior potential. The rankings were determined by using the underlying fuel models in conjunction with the BEHAVE fire behavior prediction system. The various fuel models were then plotted on the fire characteristics chart commonly used to evaluate resistance to control (Rothermal, 1983), where a fuel model's rate of spread is plotted against its heat per unit area. This plot represents fire behavior calculations conducted under severe fire weather conditions, where fires are more likely to escape. The farther the flaming front is from the origin, the greater the fire behavior potential, and hence, the greater the resistance to control. As these fuel models only reflect surface fire behavior, additional information regarding crown fire potential and slope was also included in the development of the ranking scheme.

In general terms, only those fuel complexes where there is a large volume of available fuels (yielding high heat per unit area) and at least a moderate expected rate of spread under severe environmental conditions, were given a hazard rank of "Very High". "High" and "Moderate" ranks were assigned to lesser fuel volume types where either heat per unit area or spread rate was expected to be lower. Heavy brush and heavy forest fuel types received "Very High" ranks. Moderate brush, pine/grass, intermediate load conifer, and light logging slash received "High" ranks. Grass and low volume forest types received "Moderate" ranks.

The following map exhibits the Hazardous Fuels Rank for the Unit.


Nevada - Yuba - Placer
Fuels Hazard
Map
Fuels Rank
Very High
High
Medium
CORBINS
LOMA RICA
FRENCH CORRAL
CASCADE SHOOTERS
ROUGH AND READY
ALTA SIERRA
COLFAX
HIGGINS CORNER
MEADOW VISTA
LINCOLN
AUBURN
Nevada Yuba Placer Prefire Planning and Vegetation Management
10 0 10 20 30 Miles
N
W
E
S
S.Griffis
09/20/01

7 FIRE WEATHER

The Fire Plan assessment process includes fire weather as a major component. The method to be utilized to rank the geographic areas as to fire weather severity is the following:

1. The fire weather history, in terms of average number of days of severe fire weather, is plotted and mapped by geographic area.

2. Geographic areas are ranked by the average number of days of severe fire weather during peak fire season. This allows the identification of the higher risk areas in terms of probability of fires occurring during periods of severe fire weather.

This methodology requires a special computer program to analyze tens of thousands of fire weather station reports. At the time of the implementation of the Fire Plan in the Nevada-Yuba-Placer Unit, this computer program was in development but not available for use. In lieu of the this process, NYP used the following method:

1. Geographic areas within the unit were assigned to a WIMS fire weather station that was representative of the fire weather for that area.

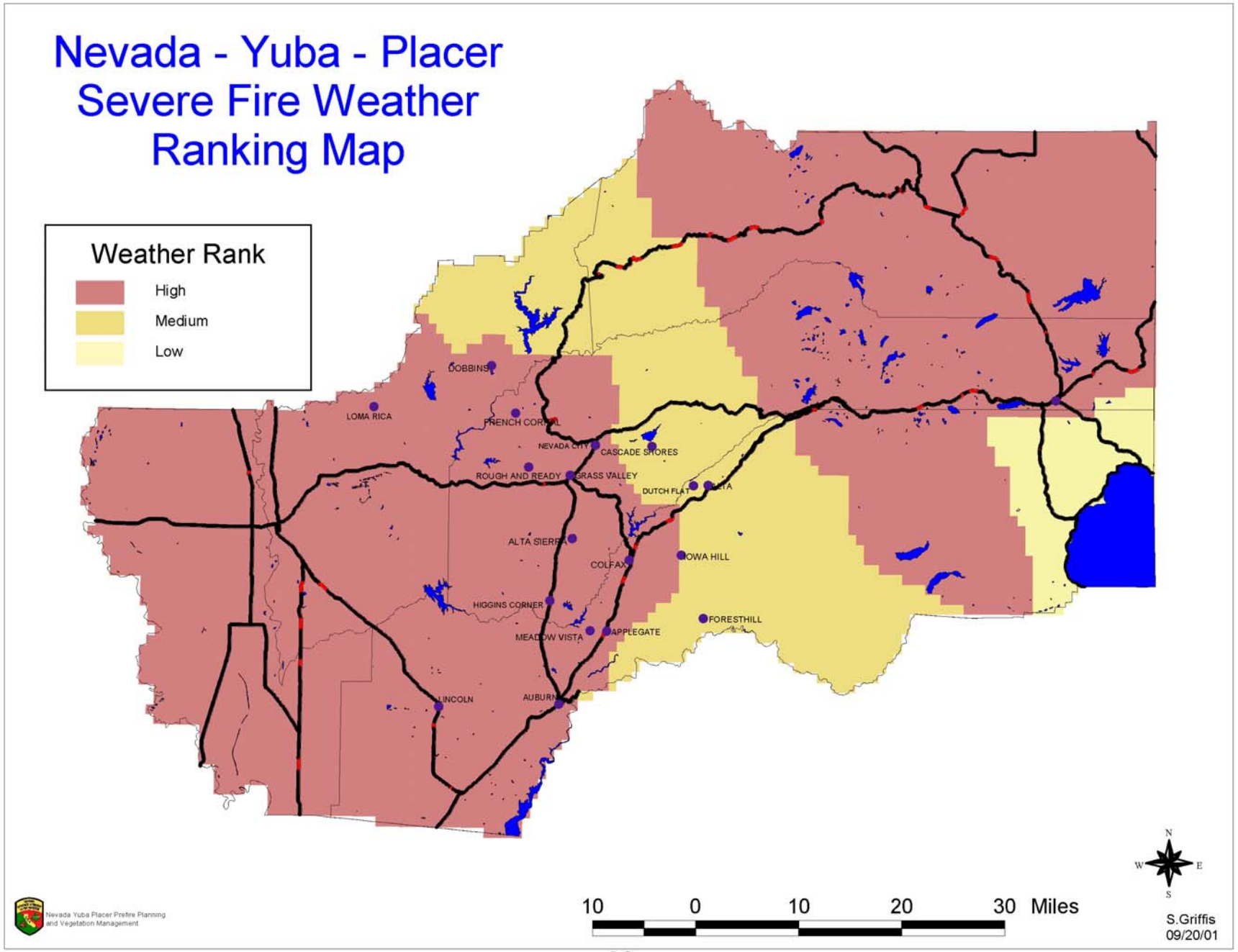
2. Chris Fontana, a fire weather meteorologist with the US Weather Service, was contacted for input as to the fire weather severity of the geographic areas represented by the WIMS fire weather stations.

3. Local CDF Battalion Chiefs gave input as to the fire weather severity of these geographic areas.

4. Each geographic area was assigned a Fire Weather Severity Rank, low, medium, or high, based on the above input.

The unit will revise the fire weather severity ranking once the aforementioned program becomes available and the results it generates are determined to be reasonable.

The following map shows the Fire Weather Severity Rankings for the unit.


Nevada - Yuba - Placer
Severe Fire Weather
Ranking Map
Weather Rank
High
Medium
Low
DOBBINS
LOMA RICA
FRENCH CORRAL
NEVADA CITY
CASCADE SHORES
ROUGH AND READY
GRASS VALLEY
DUTCH FLAT
ALTA SIERRA
COLFAX
IOWA HILL
HIGGINS CORNER
FORESTHILL
MEADOW VISTA
APPLEGATE
LINCOLN
AUBURN
N
W
E
S
Nevada Yuba Placer Prefire Planning and Vegetation Management
10 0 10 20 30 Miles
S.Griffis
09/20/01

8 Priority Areas

Utilizing the Fire Plan analysis methodology, a number of priority areas were identified. To further prioritize those areas, areas with the highest number of ignitions were then also identified. Unit personnel then contacted stakeholders in the priority areas to determine their level of interest in developing and implementing programs to reduce the areas potential to damage by a costly and damaging fire. The areas identified as the highest priority by county are:

Unit Wide

1. Fire Planners in each of the County's Building Departments.
2. Unit Wide Chipper Programs.
3. RAWS relocation and addition

Placer County

1. Auburn Area Fuel Break
2. Foresthill Prefire Project (Portions Moved to Completed Projects)
3. Meadow/Vista Applegate (Portions Moved to Completed Projects)

Nevada County

1. Nevada County Fire Mitigation Framework
2. Nevada County Fire Marshal's Office
3. Lake Vera/Purdon/Cement Hill
4. Alta Sierra (Portions Moved to Completed Projects)
5. Columbia Hill Shaded Fuel Break
6. Owl Creek Neighborhood Fuels Reduction
7. Red Dog – You Bet Neighborhood Fuels Reduction Project

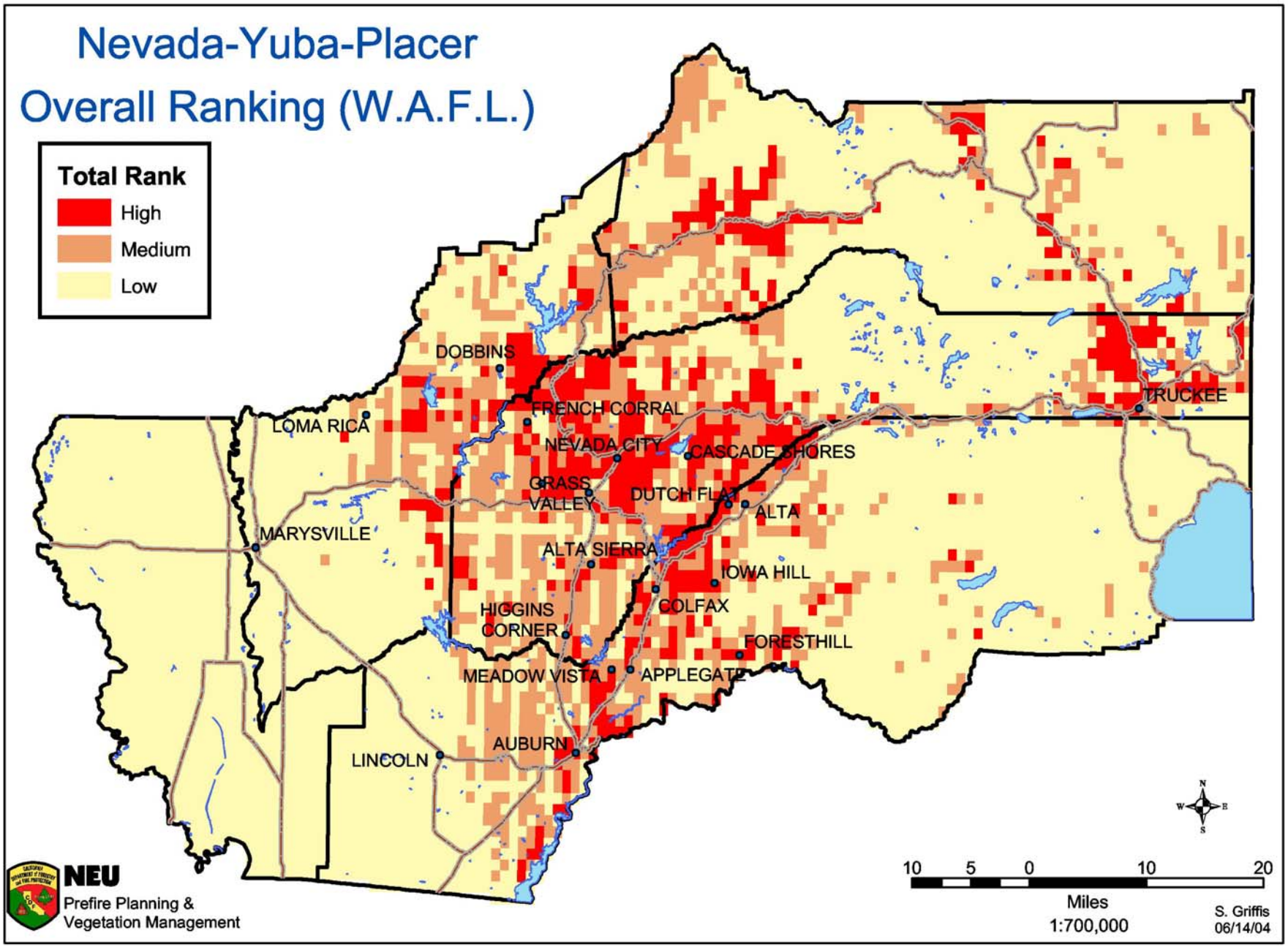
Yuba County

1. Yuba County Foothills Water Storage Project
2. Oregon Ridge Fuel Break.
3. Yuba County Public Works Roadside Clearance Project
4. Ure Mountain Roadside Fuel Modification (Maintenance – Moved to Completed Projects)

Currently, the project areas are focused around communities that primarily consist of single-family residences on one to five acre parcels. There are also a number of homes on parcels over ten acres scattered throughout each community. This combination of homes scattered across the landscape and the desire for privacy, results in a classic Rural-

Urban Interface/Intermix. Each of these areas has a group of stakeholders that have demonstrated a strong interest in working towards reducing the threat of a costly and damaging fire within their area of concern. There are many other areas identified throughout the unit for prefire management projects (see map pg 9-3). These areas were selected in part because there is already work underway in the area, but also due to their potential for a major fire based primarily on fuels and topography. Many of these areas were not immediately identified by the fire plan assessment system due to the low accumulation of assets; however, the fire risk remains very high and response times can be extended.

Along with the areas identified as high priority, the Unit also identified the need for personnel to work directly with the county Planning Departments to ensure that all new development meets fire safe standards. Due to the rate of growth in each of the counties, this was determined to be the most important proposal in the NYP Pre-Fire Management Plan to implement. Whereas the other projects would affect specific areas of the counties, a Pre-Fire Planner could affect change on a countywide basis and result in the greatest overall benefit to the public.


Nevada-Yuba-Placer
Overall Ranking (W.A.F.L.)
Total Rank
High
Medium
Low
DOBBINS
LOMA RICA
FRENCH CORRAL
NEVADA CITY
CASCADE SHORES
TRUCKEE
GRASS VALLEY
DUTCH FLAT
ALTA
MARYSVILLE
ALTA SIERRA
IOWA HILL
COLFAX
HIGGINS CORNER
FORESTHILL
MEADOW VISTA
APPLEGATE
AUBURN
LINCOLN
N
W
E
S
NEU
Prefire Planning &
Vegetation Management
10 5 0 10 20
Miles
1:700,000
S. Griffis
06/14/04

9 NEVADA YUBA PLACER UNIT PREFIRE PROTECTION PLANNER PROJECT PROPOSAL (# 1 Priority Project)

PROJECT DESCRIPTION: Fund 3 PYs at the Fire Captain level to be utilized in Nevada, Yuba, and Placer Counties as Prefire Protection Planners. These personnel will work directly with the County Planning Departments at the review stage of proposed building projects and developments.

Nevada-Yuba-Placer has two of the top ten fastest growing counties in the state. With this growth, comes development. As the Unit is primarily rural, most of the development is taking place in the rural-urban interface (I-zone). The Counties have chosen to adopt the Public Resources Code 4290 (PRC) for all new construction. However, they are not staffed or trained to carry out the regulations as outlined in PRC 4290. CDF is currently responsible for the plan reviews. Pre-fire planning issues presently make up thirty – fifty percent of the CDF field Battalion Chiefs' workload. The need for a Prefire Protection Planner at the county level to review all new projects is essential. This project is primarily designed to ensure that all new development and growth within the Unit is fire safe planned, implemented, and maintained. One other advantage of this project is that CDF will have somebody working with the Planning Departments to keep Unit personnel abreast of any potential changes in zoning or regulations that might adversely affect the Department's ability to serve its mission.

Event 1: Fund 1 person year at the Fire Captain level for Nevada County.

Event 2: Fund 1 person year at the Fire Captain level for Placer County.

Event 3: Fund 1 person year at the Fire Captain level for Yuba County.

Estimated Cost of Proposed Project: **Total = $280,134**

3 Prefire Protection Planners X $93,378 = $280,134* X 0.5 (State's cost share) = $140,067

The proposed project cost to the state to fund the 1.5 person years is $140,067. Each county would have to match $46,689** to fully fund the prefire protection planner for their county. (** This includes an administrative charge for contracting with CDF)

Potential Stakeholders to participate in Cost Sharing to Fund the Project:

- Nevada County Currently funded through Prop 172 funds.
- Yuba County
- Placer County Currently funded through Prop 172 funds.

* See Table 1

Table 1

FUEL LOAD REDUCTION PROGRAM
PRE-FIRE PROTECTION PLANNER
NEVADA-YUBA-PLACER RANGER UNIT

PERSONAL SERVICES:

	Qty	Classification	Months	Period	Monthly Rate	Total Salary	Benefit Rate	TOTAL
							39.22%	
FIRE PREVENTION	3	FC	12.0	7/1-6/30	$4,842	$174,312	$68,365	$242,677
EMERGENCY RESPONSE PERIOD-Planned OT	3	FC	5.0	7/1-6/30	$871	$13,065	**15.81%** $2,066	$15,131
Unplanned Overtime						$ 3,300	n/a	$ 3,300
						Subtotal Personal Services:		**$261,108**

OPERATING EXPENSE:

	Type	Period	No.	Mos.	Rate	Total	Benefit Rate 15.81%	Total
Uniform Allowance	Full-time	7/1-6/30	3	12	$ 800	$ 2,400	$ 379	$ 2,779

Communications
Nevada-Yuba-Placer R.U.

Type	Period	Units	Mos.	Rate	Total
Mobile	7/1-6/30	3	12	$ 9.63	$ 346.68

Vehicles	No.	Type	Miles	Rate	Total
Sedan (state-owned)	3	Sedan	12,000	0.30 per mi.	$ 10,800
Office Equipment				2100	$ 2,100.00
Training (Fire Prot. Planning)				$ 3,000	$ 3,000
				Subtotal Operating Expense:	**$ 19,026**
				Subtotal Personal Services & Operating Expense -	**$ 280,134**
				GRAND TOTAL AGREEMENT	**$280,134**

10 NEVADA – YUBA - PLACER FUELS REDUCTION PROJECT PROPOSAL (# 1 Priority Project)

PROJECT DESCRIPTION: All of the field projects identified in the Nevada-Yuba-Placer *Prefire Management Plan* identify the need for a chipper. In the NYP CDF Unit, the chipper will provide support to the homeowners that do the clearing around their structures as required by the Public Resources Code (PRC 4291) and be utilized to reduce the material removed from the shaded fuel breaks to a manageable size.

Once the homeowners accomplish their necessary 4291 clearance, they need a way to dispose of the vegetative waste that is created. The current options are: burn it, haul it to a disposal site, pile it and allow it to turn to mulch, or hire a contractor to dispose of it. Additionally, studies have shown that defensible space and construction materials have the greatest effect on a structure's survival of a wildland fire. This project directly affects defensible space and will have the most effect in reducing structure damage or loss in wildfires.

The Fire Plan assessment process has identified debris escapes as the leading cause of ignitions throughout the Unit. This debris burning results in an increased fire risk and diminishes the air quality, both of which are potentially hazardous to the public. As the rural population continues to grow throughout the Unit, both air quality and fire risk are going to become bigger issues. The Northern Sierra Air Quality Management District (AQMD), Placer County Air Pollution Control District, and the Feather River AQMD all strongly support the use of a chipper program to accomplish the required fuels reduction.

Another problem inherent to an increasing population is that of waste disposal. Currently our landfills are becoming overburdened with waste. The addition of vegetative waste only compounds the problem. One advantage of the chipper program is that it reduces the volume of the vegetative material and also expedites the process of natural breakdown. The Nevada-Yuba-Placer *Prefire Management Plan* designates that the chips created in this process will be distributed back onto the property of origin allowing the landowners to utilize the material as they see fit. Dispersion of the chipped material back onto the site also reduces the germination of annual grasses and the sprouting of brush.

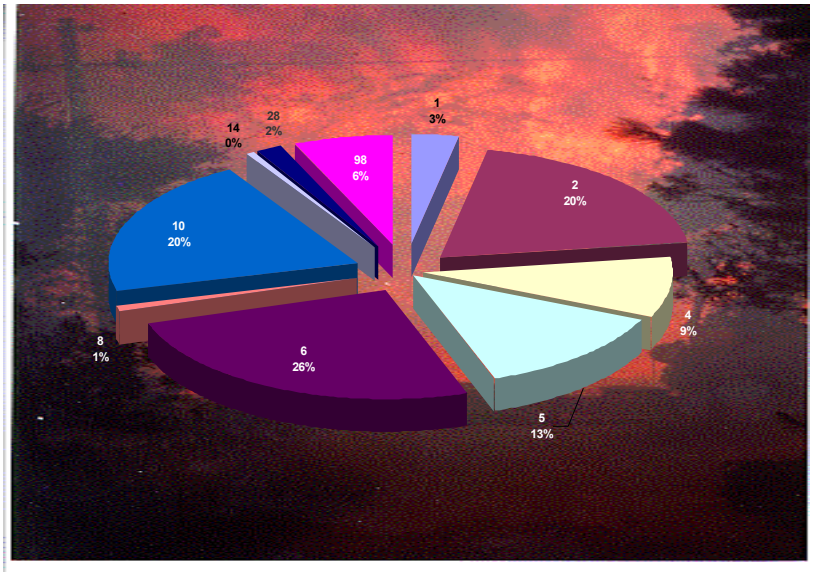
Many landowners have constructed piles from the material they removed. However, due to the restriction of burn days and the cost and labor requirements to haul it away they just allow the piles to sit and decompose naturally. This system is beneficial in that it does not reduce air quality; however, it does create many heavy pockets of dead fuel available to an encroaching fire. These pockets of fuel can have an adverse effect on fire behavior. A slow moving ground fire burning into one of these piles will increase the potential for spotting and hamper control efforts. Depending on the placement of the piles, there is an increased chance for torching nearby trees and other vegetation.

The final option for the landowners is for them to hire a private contractor to dispose of the vegetation. The contractor would, most likely, use one of the methods mentioned above, so the

ultimate effects are unchanged. Of the options mentioned above, chipping the material is the most preferable in relation to the fire hazard and air quality. Currently, the costs of chipping make it unfeasible for many small landowners. Each landowner has to pay a "Haul-in" or "Setup" fee and are generally required to pay for a minimum of one hour when using a private contractor.

Coordinators are currently overseeing chipping programs throughout Nevada and Placer Counties. These programs are a result of many funding sources working together to accomplish fuels reduction work where it is most beneficial and manageable. The Coordinators group landowners that are in close proximity to each other and make the arrangements for a chipper crew to respond. The initial work provided through these programs allow for the removal of the old, decadent material that has become established over the last 100 years of fire suppression. Once this build-up of fuels is eliminated the landowners will be better able to deal with the fuels on an annual basis. It is the Unit's expectation that once it is shown how beneficial this project is to individual neighborhoods, those areas will utilize the process on their own as a method of maintaining the required clearance around structures. In addition, this program would encourage people to do their PRC 4291 required clearing that would not have done it voluntarily as now there is a method of disposing of the cut material.

The fuel models in the area are displayed in figure 1 below. As is evident from the chart, nearly fifty percent of the fuels are in brush models. The fuel model 10 in this area also has a heavy brush component in the understory. So far the fuels around more than 9,500 homes have been modified from the brush models to a fuel model 8. A wildland fire that now encroaches on these homes will experience a significant reduction in fire behavior. It is estimated that there are still over 140,000 properties in the Unit requiring inspections. Of those approximately 130,000 will require brush disposal. By encouraging those property owners to meet PRC 4291, we will effectively treat a minimum of 20,000 acres within the Unit. This treatment will affect the fuels immediately adjacent to homes. Many studies have shown this combined with building construction measures to be the most effective treatments for protecting structures during a wildfire.



10.1 Estimated Project Cost ***$2,750,000***

Chipping programs have been successfully operating in each of the three counties for two or more years. Even though these programs are separate and operated in various fashions, the overall results remain the same.

Nevada County – The fuels reduction program within Nevada got it start through the FEMA Hazard Mitigation Program (HGMP). We initially received approval for approximately $600,000 to create fuel breaks and provide chipping services to specific areas within the County. This program sparked the interest of many of the residents that lived outside of the identified project areas and they immediately began requesting that the same service become available throughout the County. The following year we were able to accomplish that through $22,000 of Fuels Reduction funds provided by CDF through the Fuels Reduction Program. Those funds introduced many residents to the Chipping Program and resulted in a demand that was greater than we could have hoped for. To date the Chipper Program has resulted in the treatment of over 2,000 residences by processing in excess of 98,000 cubic yds of fuels at those residences. We have also treated over 80 acres along more than eight miles of roads by removing more than 1,200 tons of vegetative fuels to create roadside fuels reduction areas. We have continued the program over the years through funds from a variety of sources including but not limited to: WUI Grants ($216,000), Forest Stewardship Grant ($165,000), BLM ($152,000), Northern Sierra AQMD ($29,000), Nevada County $(43,000), Allstate Insurance ($33,000), and a number of home-owner associations ($45,000). Through Prop 204 ($125,000) over 300 acres were treated by our cooperators.

Placer County – Initial fuels reduction efforts in Placer County were undertaken as an outcome of the settlement between Placer County and Pacific Gas & Electric. Approximately $271,000 was set aside to reduce the fuel loading within the County. We utilized that as start up money to initiate the Residential Chipper Program within the County. To date the Chipper Program has resulted in the treatment of over 7,500 residences by processing in excess of 15,600 tons of fuels at those residences. We have also treated over 150 acres along more than 40 miles of roads removing over 5,100 tons of vegetative fuels to create roadside fuels reduction areas. These areas will allow for reduced fire behavior along the roadways in times of fire emergencies. The program has been able to continue with the application of funds provided through Proposition 204 ($252,000), Wildland Urban Interface (WUI) Grants $(210,000), Placer County Air Quality Management District (AQMD) $(65,000).

The fuel reduction efforts in Yuba County have been directed primarily at large landowners. Approximately $966,000 has been spent treating parcels ten acres and larger. These funds were obtained by the Yuba Watershed Protection & Fire Safe Council through Prop 204 monies. NYP has established a contract with the Dobbins-Oregon House Fire Department to provide chipping services throughout the foothill communities of Yuba County.

11. AUBURN FUEL BREAK

This project is within the Auburn State Recreation Area (ASRA) Fire Management Plan developed as part of the contract between CDF, Bureau of Reclamation (BOR) and State Parks (CSP&R). A complete copy of the ASRA Fire Management Plan can be found near the back of this document (see Appendix 6). The Auburn Fuel Break is designed to reduce the threat of a canyon fire moving into the residential area of Auburn along the rim of the North Fork of the American River. It will also help protect the ASRA from a fire moving from residential area. The residential properties are immediately adjacent to large tracts of federal land, which extend all the way to the river and up the other side. The federal lands were originally established to occupy the river canyon up to, and including, the predicted high water mark for the proposed Auburn Dam Project. Since the dam is yet to be constructed the lands are open to the public for recreational purposes. Due to its proximity to the river, the use of these lands by recreationists dramatically increases during the summer months when the fire danger is at its highest.

Project Proposal

Work with the BOR and CSP&R to develop a fuel break on the public lands along the ridgeline and below the private property. Assist Auburn City in encouraging the private landowners immediately adjacent to the public land to commit to fuel reduction projects on their own land. The goal is to establish a 300 foot modified shaded fuel break along the ridge that utilizes both public and private lands in an effort to protect the interests of all those involved.

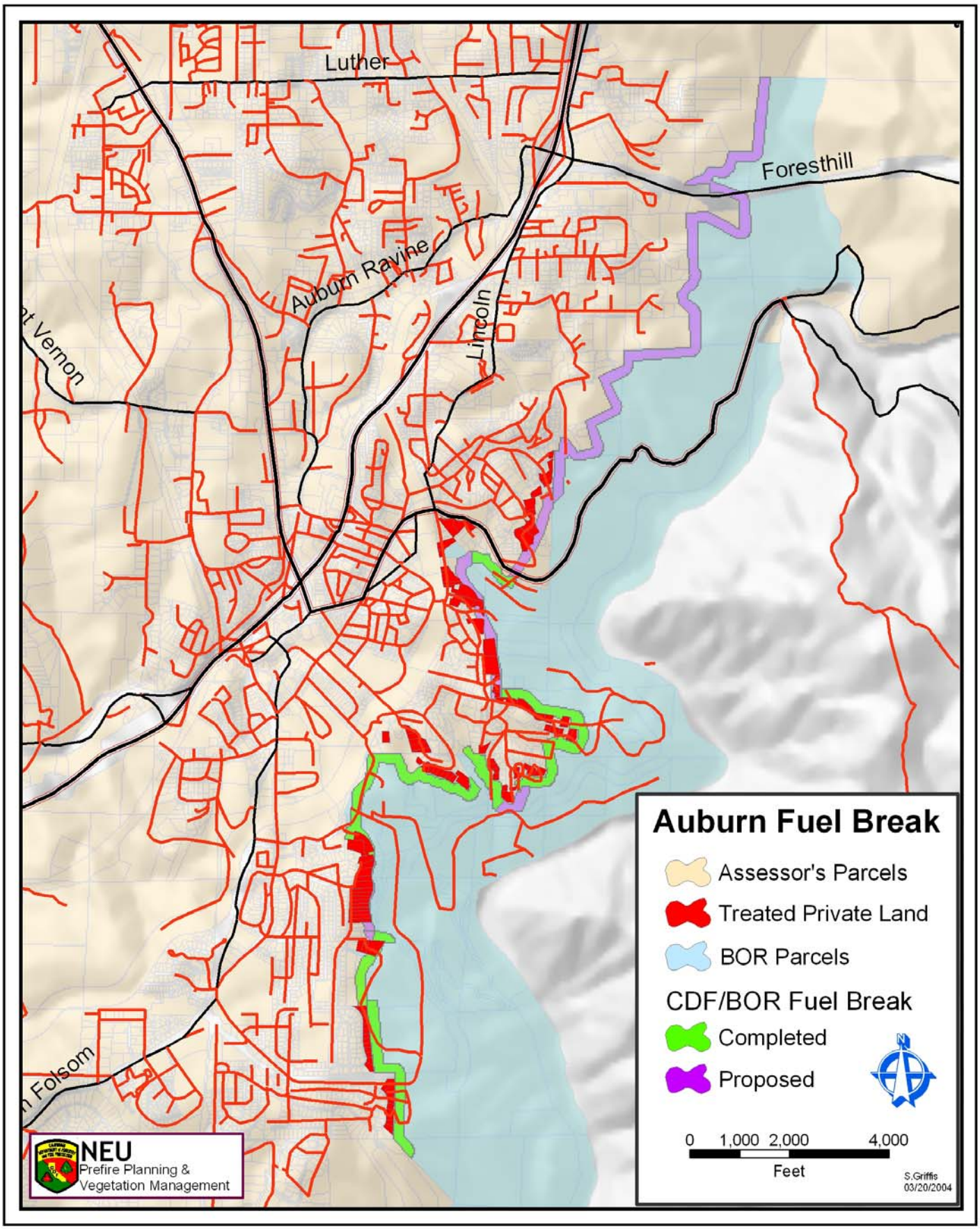
Event 1: Using GIS and other means identify the properties that will require fuel modification in order to establish an effective fuel break. Notify those landowners in an effort to educate them on the necessities of the fuel break and attempt to get their "buy-in" to the project.

Event 2: Assist Auburn City with developing a use agreement with the private land owners that will allow the City to act as a contract agent on their lands to assist in the fuels modification work.

Event 3: Identify the BOR parcels that will require fuels modification work and work with them to complete the fuels modification work in whatever means are available.

Event 4: A second fuel break is proposed for the rim of the canyon on the other side of the river and will be addressed in the Amador – Eldorado Fire Management Plan and the ASRA Fire Management Plan.

The proposed fuel break is approximately nine miles long and will occupy over 325 acres. **Estimated Project Cost $300,000** Primarily funded by the BOR with some assistance to the home owners via the Placer County chipping program.


Luther
Foresthill
Auburn Ravine
Lincoln
t Vernon
n Folsom
Auburn Fuel Break
Assessor's Parcels
Treated Private Land
BOR Parcels
CDF/BOR Fuel Break
Completed
Proposed
0 1,000 2,000 4,000
Feet
S.Griffis
03/20/2004
NEU
Prefire Planning &
Vegetation Management

12. FORESTHILL FUEL MODIFICATION PROJECT

The Foresthill prefire project was designed to tie in with and increase the effectiveness of current projects that the Placer County Resource Conservation District (RCD) has implemented in the area as a result of grant funding from CDF and fuel break projects the Tahoe National Forest has started to the east of Foresthill. The RCD projects include a demonstration of a shaded fuel break for forest lots, education of the local population of fire safe standards, and fuel break planning for the Foresthill Divide.

Foresthill Prefire Project:

Event 1: An inspection program of the Foresthill Divide area to enforce the Public Resources Code 4291 Fire Safe standards (LE 38 Inspection). Placer County Planning Department estimates that there are approximately 2,400 housing units on the Divide. Over 700 of these homes have been inspected so far. Inspection of these housing units will serve two purposes:

1. Ensure compliance with PRC 4291. This will promote a fuel condition adjacent to structures where fire suppression resources will have a better chance of protecting homes should a wildfire occur.

2. Educate the homeowners of the state law requirements regarding defensible space standards and what they should do to help the chances of their house surviving a wildfire in the area.

The Nevada Yuba Placer Unit has found, in its Nevada County LE 38 Inspection program in 2001, that 33% of the residences require a second inspection to ensure compliance with PRC 4291. Approximately 1% of the residences required a third inspection.

Event 2: Second LE 38 inspection of approximately 800 housing units.

Event 3: Third LE 38 inspection of approximately 24 housing units.
*Includes General Services vehicle rental for inspectors.

Event 4: A series a roadside fuel modification projects located in strategic areas to allow fire fighting resources access and a location to effectively suppress an encroaching wildfire.
This portion of the project has been completed.

Event 5: Homeowner support for removal of vegetation as a result of the LE 38 inspections. The inspections will most likely occur in the late spring and summer months. Residents who remove vegetation as a result of the inspections may need alternative ways to dispose of the material. Burn days will be limited due to air quality and fire hazard concerns. The proposed support for the homeowner is to notify the residents that have been inspected as to a time frame when a chipper and crew will be by their street. The homeowner can then clear vegetation around their residence and bring it to the curbside. The crew will then chip the vegetation and deposit the material back onto the property. Of the homes that were inspected, 209 received a warning

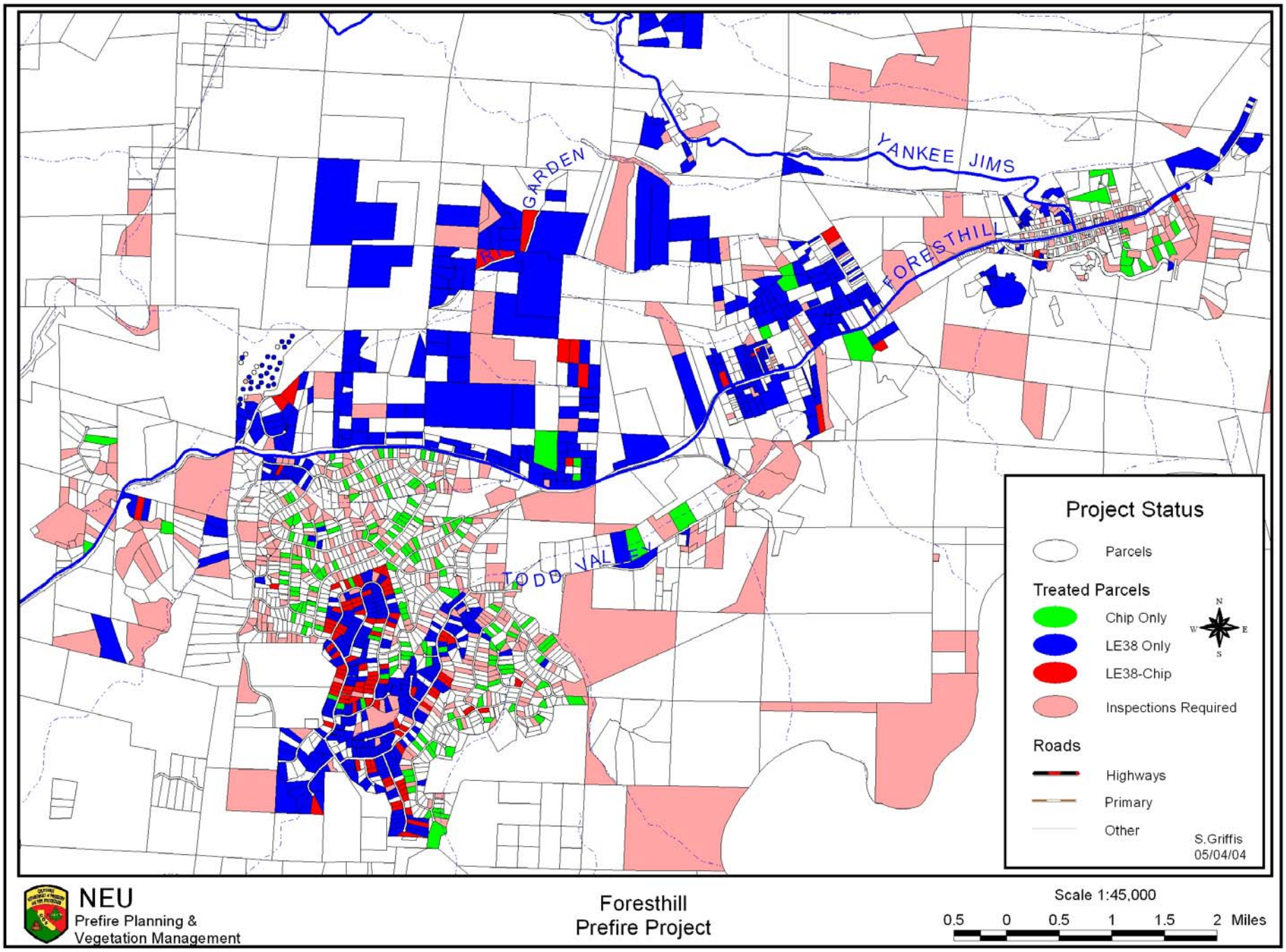
notice and sixty-four have since utilized the chipping program. A total of 267 residences within the project area have made use of the chipper program and many others have cleared around their homes in an effort to reduce their fire hazard.

Potential Stakeholders to participate in Cost Sharing to Fund the Project:

- Placer County
- Todd Valley Homeowners Association
- Local Service Groups
- Placer County Resource Conservation District
- Placer County Air Pollution
- Natural Resources Conservation Service
- California Energy Commission
- Tahoe National Forest
- Bureau of Land Management
- Bureau of Reclamation
- American River Watershed CRMP
- Foresthill Fire Protection District
- Pacific Gas & Electric

Estimated Cost of Proposed Project: **$153,910.14**

To date over $75,000 has been expended towards this program. The funding has come from a variety of programs including Pacific Gas & Electric settlement funds, Prop 204, and National Fire Plan monies.


GARDEN
YANKEE JIMS
FORESTHILL
TODD VALLEY
Project Status
Parcels
Treated Parcels
Chip Only
LE38 Only
LE38-Chip
Inspections Required
Roads
Highways
Primary
Other
S.Griffis
05/04/04
N
W
E
S
NEU
Prefire Planning &
Vegetation Management
Foresthill
Prefire Project
Scale 1:45,000
0.5 0 0.5 1 1.5 2 Miles

13. MEADOW VISTA / APPLEGATE PREFIRE PROJECT PROPOSAL

The Meadow Vista / Applegate prefire project was also designed to augment current prefire projects that have been implemented by the Placer County Resource Conservation District, in conjunction with Placer Hills Consolidated Fire District, Natural Resources Conservation Service, and the Black Oak Waldorf School, through grants funded by way of CDF and other sources. These projects include demonstrations of a CDF Vegetation Management Program prescribed burn, shaded fuel break, defensible space, and hand versus mechanical methods of fuel reduction, and a handbook for home-owners about defensible space. There is strong support of these pre-fire projects by the local community as evidenced by heavy attendance of public workshops and landowner participation.

Meadow Vista / Applegate Prefire Project

Event 1: A series of roadside fuel modifications, located in strategic areas to allow fire fighting resources access and a location to effectively suppress an encroaching wildfire. Using existing roads for the location of the fuel modification takes advantage of the area occupied by the road surface, which is devoid of all vegetation. Modifying the fuels for a distance of 25 feet on both sides of the existing road will give an effective fuel break width of approximately 70 to 80 feet for secondary roads. The location of these fuel modifications will allow ready access and a strategic defensive position for fire suppression resources and facilitate long term maintenance of the fuel breaks.

Proposed Roadside Fuel Modifications:

1. Canyon River Fuel Break separating Applegate from the North Fork of the American River. The fuel break will follow primarily along portions of Cerro Vista Drive, and Boole Road.
    - Approximately 7 miles (This portion has been completed)

2. Placer Hills Road Fuel Break from I 80 to and including Weimar Cross Roads to I 80 again.
    - Approximately 8 miles

The total area encompassed by the shaded fuel breaks is about 90 acres over a distance of approximately 15 miles.

Event 2: An inspection program of the Meadow Vista and Applegate area to enforce the Public Resources Code 4291 Fire Safe standards (LE 38 Inspection). Placer County Planning Department estimates that there are approximately 3,400 housing units in this general area. Inspection of these housing units will serve two purposes: To date over 2,600 of the homes in the area have been inspected for compliance with PRC 4291. Of those inspected, less than twenty percent received a warning notice and more than 280 have made use of the chipping program. There were an additional seventy-one residents that utilized the chipper without having an inspection to encourage them.

1. Ensure compliance with PRC 4291. This will promote a fuel condition adjacent to structures where fire suppression resources will have a better chance of protecting homes should a wildfire occur.
2. Educate the homeowners of the state law requirements regarding defensible space standards and what they should do to help the chances of their house surviving a wildfire in the area.

The Nevada Yuba Placer Unit has found, in its LE 38 Inspection program in 2003, that less than 1% of the residences required a third inspection.

Event 3: Second LE 38 inspection of approximately 1,122 housing units.

Event 4: Third LE 38 inspection of approximately 34 housing units.

Event 5: Homeowner support for removal of vegetation as a result of the LE 38 inspections. The inspections will most likely occur in the late spring and summer months. Residents who remove vegetation as a result of the inspections may need alternative ways to dispose of the material. Burn days will be limited due to air quality and fire hazard concerns. The proposed support for the homeowner is to notify the residents that have been inspected as to a time frame when a chipper and crew will be by their street. The homeowner can then clear vegetation around their residence and bring it to the curbside. The crew will then chip the vegetation and deposit the material back onto the property.

Event 6: A series of prescribed burn units along the north side of the North Fork of the American River designed to reduce the fuel load along the slope in a mosaic pattern. Treatment of these units will break the continuity of the mature and dense brush currently occupying the slope. The advance of wildfire at this location would slow as it moved into a treated unit allowing fire suppression resources more time and a better location for fire fighting operations.

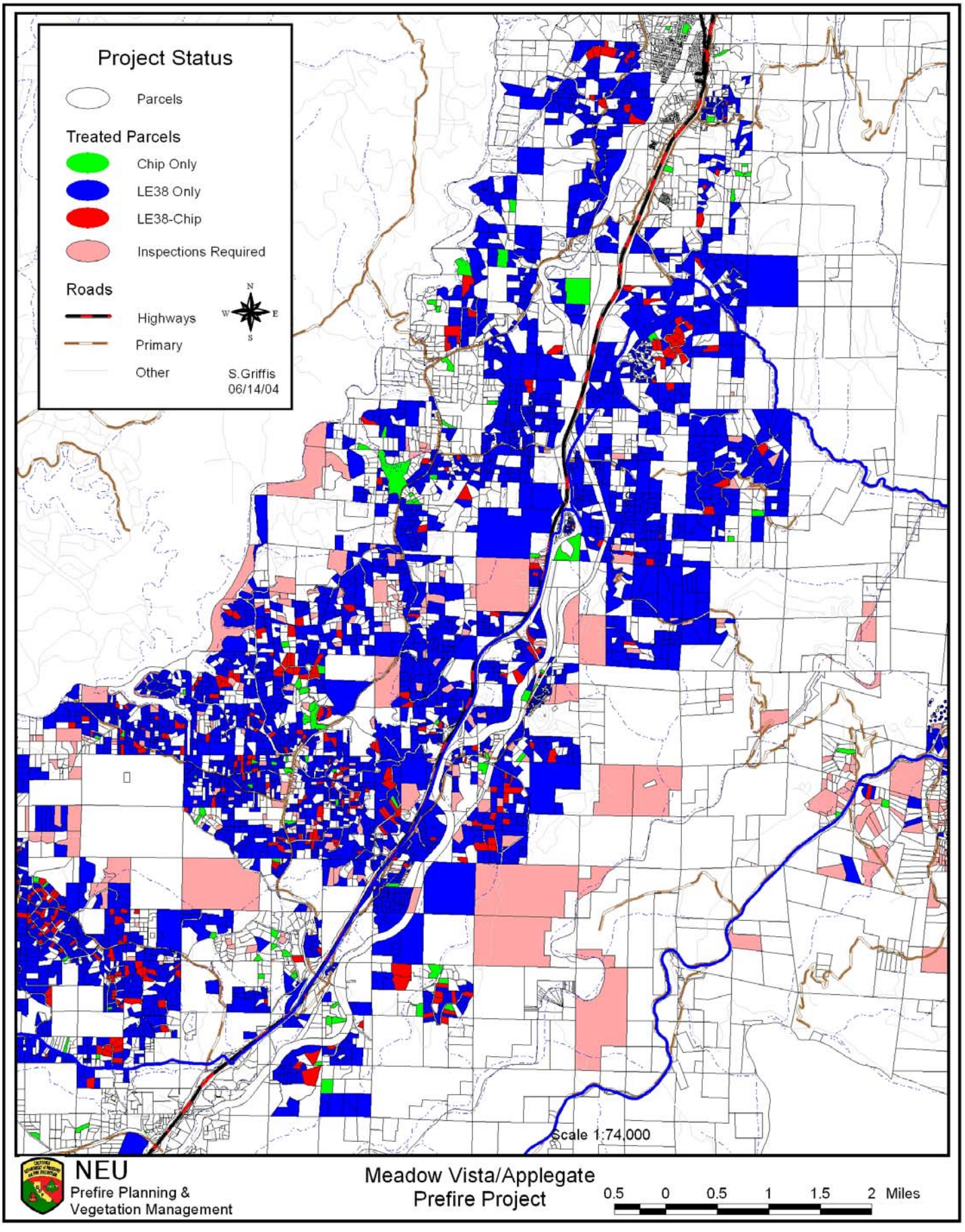
- Prescribed Fire size is approximately 320 acres over 8 units

Potential Stakeholders to participate in Cost Sharing to Fund the Project:

- Placer County
- Local Service Groups
- Placer County Resource Conservation District
- Natural Resources Conservation Service
- Placer County Air Pollution
- Placer Hills Fire District
- American River Watershed CRMP
- Homeowners Associations

Estimated Cost of Proposed Project **Total = $259,355.70**

To date over $98,000 has been expended towards this program. The funding has came from variety of programs including Pacific Gas & Electric settlement funds, Prop 204, and National Fire Plan monies.


Project Status
Parcels
Treated Parcels
Chip Only
LE38 Only
LE38-Chip
Inspections Required
Roads
Highways
Primary
Other
N
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S.Griffis
06/14/04
Scale 1:74,000
NEU
Prefire Planning &
Vegetation Management
Meadow Vista/Applegate
Prefire Project
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11 NEVADA COUNTY FIRE MITIGATION FRAMEWORK

Background

With its long hot summers, steep terrain, significant accumulations of wildland fire fuels, and significant residential development with lagging infrastructure, Nevada County represents the ideal environment for large, damaging wildfires. Over the years, much has been done to address the problem; from conditioning projects with fire protection measures, to adopting new ordinances in 1992, and most recently the coming together of a wide range of stakeholders to create the Fire Safe Council of Nevada County. Unfortunately, to this point much of the effort towards fire safety has been in response to specific issues or mandates and has not addressed the entire complex problem. The issues of, risk reduction, suppression capability, circulation, public desires, fuels management, affordable housing, evacuation planning, and fire prevention funding all need to be considered as the County addresses the wildland fire problem. A number of similar programs have been developed elsewhere; however, none of them have addressed all of these issues. This document could become a blueprint for other counties to follow.

Proposal

This request proposes that an inclusive effort be put into place to prepare a comprehensive Wildland Fire Mitigation Framework for Nevada County. Currently, within the various stakeholders i.e. fire service, law enforcement, development community, planners, and community groups, there is a wealth of knowledge and high level of awareness that can be captured and utilized to develop a framework for the County. This framework can be used to provide fire hazard mitigation measures; however, currently none of these groups are prepared to compile all of the knowledge, data, or information into a working document. This proposal would provide funds for a field professional to create the framework that would define the process for the County to develop fire hazard mitigation measures relative to the wildland fire problem, the impacts of current and future development, the need for review of existing regulations for adequacy and appropriateness, and improved circulation routes to provide for safe emergency access and evacuation, through the expertise of the local knowledge base. The field professional will be responsible for arranging, facilitating, and recording meetings to gather the necessary information from the local experts and compiling that information into the aforementioned framework.

Event 1

Nevada County Board of Supervisors to appoint a Fire Plan Committee. Task completed September 2004. (CDF Unit Chief – Tony Clarabut, USFS Forest Fuels Management Specialist – Gary Fildes, Nevada County Consolidated Fire Chief – Tim Fike, Nevada County OES – Rich Reader, and Fire Safe Council of Nevada County Representative – Jeff Dunning)

Event 2

Hire a consultant to arrange, facilitate, and record meetings to gather the necessary information from the local experts and compile that information into the framework.

Event 3
Hold a series of committee meetings to develop the goals, objectives, and recommendations to present to the Board of Supervisors.

Event 4
Hold a series of public meetings to develop consensus across the various interests in the County. This will allow the committee to present the Board with a document that should be met with a minimum amount of resistance from the variety of special interest groups present in the County.

Event 5
Present the document to the Board of Supervisors for adoption.

1. Success Measurements
   The success of this proposal will be determined when the County decides whether to adopt the framework into the planning process. It has the potential to affect each and every citizen of Nevada County either directly through wildland fire mitigations or indirectly through high governmental costs and citizen losses due to another costly and damaging fire such as the Forty-Niner fire. A number of similar programs have been developed elsewhere; however, none of them have addressed all of these issues or developed a "road map" to help the community plan for the future. This document could become a blueprint for other counties to follow.

Potential Stakeholders to participate in developing the final document

- Nevada County
- FireSafe Council of Nevada County (FSCNC)
- Nevada County Board of Realtors
- California Association of Property Owners
- Sierra Club
- Residents of Nevada County
- Nevada County Resource Conservation District (NCRCD)
- Natural Resources Conservation Service (NRCS)

Estimated Cost of Proposed Project **Total = $20,500**

12 STAFFING OF THE NEVADA COUNTY FIRE MARSHAL'S OFFICE

Nevada County is in the process of attacking the wildland fire problem in a new and innovative manner. Whereas the Defensible Space ordinances have been on the book for several years, their enforcement and effectiveness is somewhat haphazard due to the lack of resources implement the program. To address this Nevada County Board of Supervisors has assigned a committee to make recommendations to the Board in order to reduce the potential of costly and damaging fires in Nevada County. This committee has identified the fuels problem as the main issue and is looking at addressing the fuels problem at a "Defensible Communities" level instead of the standard "Defensible Space".

Nevada County Fire Marshal's Office Prefire Project

Establish positions within the Nevada County Fire Marshal's Office to implement the recommendations identified in the Fire Plan Framework. This proposal will result in a self sustaining program that will allow the County to establish and enforce a hazardous fuels reduction ordinance on improved and the unimproved properties adjacent to or surrounding improved properties within Nevada County. There is currently a chipping program available to residents to encourage defensible space. The chipping program currently serves 1200 - 1500 residences annually. This project will allow us to expand the fuels reduction program to include additional residences and unimproved properties in the area of improved properties, thus extending the defensible space concept beyond structures and into the landscape. We estimate that this program will result in approximately 2000 properties being treated annually, which will provide protection to more than 500 additional homes. The program will provide inspectors to identify properties with a fuels hazard. The inspectors will then provide the landowner with educational information to encourage fuels reduction work by the owner. In the event the landowner chooses not to comply with the fuels reduction requirements, the property will be treated by a local contractor and the cost will be added to the owner's property taxes. Through this system, we anticipate creating a landscape that will result in less severe fire behavior around the residential properties. There are plans to implement a fee structure at the plan approval stage to generate future funds to continue this program once the grant expires. CDF and the Nevada County Fire Marshal's Office want to develop a program that can become a model for other communities. Instead of relying on the individual defensible space around structures we are looking at creating a defensible landscape through an integrated Fire Safe program. This program will build off of the work already being completed by entities such as the Nevada County Department of Transportation, Nevada County Fire Safe Council, and Pacific Gas & Electric.

Details can be found in the attached draft of the Nevada County Fire Mitigation Framework in Appendix 7.

Potential Stakeholders to participate in Cost Sharing to Fund the Project:

- Nevada County
- Federal Emergency Management Agency (FEMA)
- California Office of Emergency Services (OES)
- Local Service Groups
- Nevada County Resource Conservation District
- Natural Resources Conservation Service
- Northern Sierra Air Quality District
- Nevada County Fire Chiefs

Estimated Cost of Proposed Project **Total = $3,000,000**

13 ALTA SIERRA PREFIRE PROJECT

The Alta Sierra area was targeted for a prefire project due to its high rate of ignitions and its close location to areas to the north that have high rankings for assets, fuel hazard, and the lower rated level of service. In addition, this area has a past history of enthusiastic support of fire hazard reduction programs by the homeowners, Northern Sierra Air Quality District, and Nevada County Consolidated Fire Protection District (NCCFD). The NCCFD is currently the lead on continuing this project. They have instituted an ordinance that requires the owners of vacant lots to remove the hazardous fuels prior to fire season. If the landowner does not comply the NCCFD contracts to have the work completed and bills the landowner via their property taxes. The personnel from this department have conducted 285 inspections, which, resulted in fuel treatments on over 250 properties totaling more than 350 acres within their fire district.

Alta Sierra Prefire Project

Event 1: An inspection program targeting the vacant properties within the local fire district has been ongoing since 1997. They have developed a schedule that inspects each vacant property at least once every five years. This program holds the individual landowner responsible for reducing the hazardous fuels on their own lands.

Event 2: An inspection program of the Alta Sierra area to enforce the Public Resources Code 4291 Fire Safe standards (LE 38 Inspection). Nevada County Planning Department estimates that there are approximately 2,900 housing units in this area. Inspection of these housing units will serve two purposes:

1. Ensure compliance with PRC 4291. This will promote a fuel condition adjacent to structures where fire suppression resources will have a better chance of protecting homes should a wildfire occur.
2. Educate the homeowners of the state law requirements regarding defensible space standards and what they should do to help the chances of their house surviving a wildfire in the area.

The Nevada Yuba Placer Unit has found, in its Nevada County LE 38 Inspection program in 2000, that only about 5% of the residences require a second inspection to ensure compliance with PRC 4291. Approximately 1% of the residences required a third inspection.

Event 3: Second LE 38 inspection of approximately 145 housing units.

Event 4: Third LE 38 inspection of approximately 29 housing units.
*Includes General Services vehicle rental for inspectors.

Event 5: Homeowner support for removal of vegetation as a result of the LE 38 inspections. The inspections will most likely occur in the late spring and summer months. Residents who remove vegetation as a result of the inspections may need alternative ways to dispose of the material. Burn days will be limited due to air quality and fire hazard concerns. The proposed support for

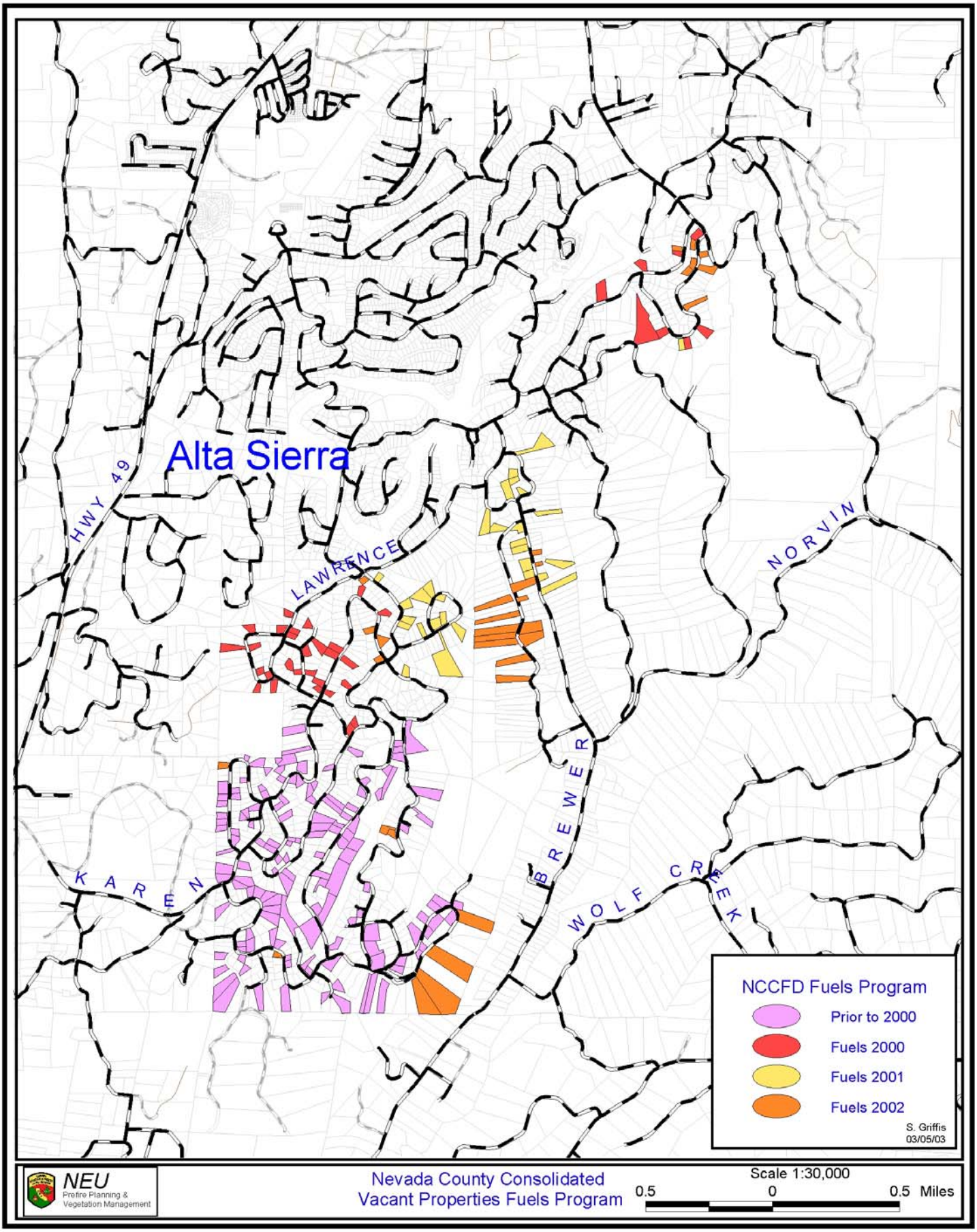
the homeowner is to notify the residents of the Western Nevada County chipping program at the time of the inspections. The homeowner can then clear vegetation around their residence, bring it to the curbside, and notify the FireSafe Council of Nevada County (NCFSC) once completed. The NCFSC will then dispatch a chipping crew to the area once sufficient material has been piled to keep the chipper busy for a minimum of four hours. The crew will then chip the vegetation and deposit the material back onto the property.

Potential Stakeholders to participate in Cost Sharing to Fund the Project:

- Nevada County
- Local Service Groups
- Nevada County Resource Conservation District
- Natural Resources Conservation Service
- Northern Sierra Air Quality District
- Nevada County Consolidated Fire Protection District
- Alta Sierra Subdivision Homeowners Association

Estimated Cost of Proposed Project **Total = $125,652.50**

The chipping portion of this program is incorporated in the amounts listed in the totals for the Unit-Wide Chipping described above. The cost of inspecting the vacant lands is being born by the Nevada County Consolidated Fire Department. The landowners fund clearing the properties.


Alta Sierra
HWY 49
LAWRENCE
BREWER
NORVIN
KAREN
WOLF CREEK
NCCFD Fuels Program
Prior to 2000
Fuels 2000
Fuels 2001
Fuels 2002
S. Griffis
03/05/03
NEU
Prefire Planning & Vegetation Management
Nevada County Consolidated
Vacant Properties Fuels Program
Scale 1:30,000
0.5 0 0.5 Miles

14 COLUMBIA HILL SHADED FUEL BREAK PROJECT

With California's wildland-urban interface areas quickly growing, as well as the population of Nevada County, the objective of the Columbia Hill Shaded Fuel Break Project is to create a shaded fuel break in the Columbia Hill area of Nevada County. Strategically, the project will tie in with the earlier established Montezuma Fuel Break to give firefighters a place to make an efficient stand against a wildfire on the San Juan Ridge.

In the 6 mile fuel break area there are approximately 85 separate landowners, 47 of whom chose to participate in the project. Nearly all of these homeowners have insufficient defensible space and combining this with poorly maintained roadside vegetation, the Fire Safe Council of Nevada County was able to work with the California Department of Forestry and Fire Protection to identify the prior mentioned aspects of the area as a recipe for disaster.

The Columbia Hill area is predominately heavy timbered land with thick manzanita understory fuels.

Actions involved in the proposed project

The Columbia Hill Fuel Break Project was designed to tie in with previously established fuels reduction efforts, such as the Montezuma Fuel Break. Specifications written into the project called for the creation of a 400' wide shaded fuel break to run 200' along both sides of Tyler Foote and Cruzon Grade Roads in the project area. There has been strong support and great interest in this project from the involved community.

Event 1: Fuel Break Construction. A community meeting was held in July of 2003 to introduce this project to the community. After a number of other mailings to landowners, the FSCNC began meeting with landowners who chose to participate in the project to mark property boundaries as well as determine what specific work they would like accomplished. Under the grant funding the project the FSCNC was also able to hire a contracted forester who met with each landowner who wished to have timber removed from their land to mark timber and confirm their wishes. Once this was accomplished, a Timber Harvest Plan was submitted to the California Department of Forestry and Fire Protection and the hand clearing and timber work was put out to bid. Pending approval of the Timber Harvest Plan, the FSCNC will select a licensed timber operator to contract with to complete the work at which time a FSCNC representative will be on site at all times to ensure correct operations are taking place on individually owned lands. The end result will be a 400' wide fuel break throughout much of the Columbia Hill area.

Event 2: Fuel Break Maintenance. With the exception of one parcel, all participating landowners have agreed to donate revenue from their harvested timber back to the Fire Safe Council of Nevada County. These funds will be placed in a trust fund and utilized to maintain the fuel break over the next five to ten years.

15 OWL CREEK NEIGHBORHOOD FUELS REDUCTION PROJECT

In 1988, the Forty-Niner fire ravaged the Owl Creek area of Nevada County. Since that time, residents of the area have seen the fuels in the area regenerate to the levels that were present prior to that fire. Many homeowners in the area have a genuine concern regarding the threat of wildfire and approached the Fire Safe Council of Nevada County in 2003 to seek grant funding for roadside fuels reduction in their neighborhood. There are approximately one hundred separate landowners in the area of Owl Creek, McKitrick Ranch, Barn Owl, Hoot Owl, Arctic Owl, Red Tail Hawk and Pau Hana Roads, 68 of whom chose to participate in the fuels reduction project funded under a Bureau of Land Management Community Wildfire Prevention Grant.

Currently the roadways in the area have heavy fuel accumulations on the roadsides, including dense manzanita and scotch broom. In some areas these accumulations are so great that it is extremely difficult to drive the roads, thus it would be impossible for fire engines to use these roads as access, many of which were initially intended as fire roads. In the event of a wildfire such fuel loads would greatly hinder the ability of residents to evacuate, as well as compromise the safety of residents and firefighters alike. The goal of this program is to bring roads in the area up to higher safety and evacuation standards.

Actions involved in the proposed project:
The Owl Creek Neighborhood Fuels Reduction Project was designed to create safer evacuation routes for residents as well as safer, more efficient ingress for firefighters. This program will provide 30’ of roadside clearing on both sides of the road to any landowner within the project area who wishes to participate. The project is completely participant driven and the work completed is up to the specific landowner. There is also a number of Bureau of Land Management Parcels in the area which are of great concern to the residents. With the issuance of a variance, these lands will benefit from the roadside clearing as well. There has been great support from the community for this project, as it was initiated by the community itself.

Event 1: Roadside clearing for participating landowners. Fire Safe Council of Nevada County (FSCNC) staff and volunteers have met with all 68 participating landowners to complete on-site consultations and determine what work is to be completed. FSCNC coordinated brush clearing contractors will be moving through the area in an efficient manner, completing the roadside clearing work as indicated by the FSCNC consultation notes. All materials removed will be chipped and spread back onto the property with the exception of Scotch Broom which is to be removed to a landfill or transfer station. The project work is scheduled to be completed by mid-June of 2004.

16 RED DOG – YOU BET NEIGBORHOOD FUELS REDUCTION PROJECT

In recent years the Red Dog – You Bet area of Nevada County has began to grow dramatically and has seen a great increase in the number of recreational enthusiasts frequenting the area whom often leave illegal bonfires or campfires unattended. The residents of the Red Dog – You Bet area feel that their roadsides are insufficiently cleared and with such a large number of homes in the area, the neighborhood is at a high risk of disaster in the event of a wildfire.

Roadways in the area are very narrow and windy. There is a heavy accumulation of Pine saplings, Manzanita, Scotch Broom and other native vegetation along the roadways in the area, many of which are unpaved and feature overhanging fuels. Due to heavy fuels in the area and a growing population of residents and recreational enthusiasts alike, the Red Dog – You Bet neighborhood association came to the Fire Safe Council in 2003 seeking assistance with grant funding for roadside clearing to provide safer ingress and egress in the event of a wildfire.

Actions involved in the Proposed Project: The Red Dog – You Bet Neighborhood Fuels Reduction Project was developed to create a 15' clearance on both sides of roadways in the Red Dog – You Bet area, as well as provide mileage markers on main roadways. The Bureau of Land Management also considers this area as a high priority for fuels reduction efforts. There is incredibly strong support for this types of projects from the local community.

Event 1: Roadside Clearing. A Fire Safe Council of Nevada County representative will meet with landowners in the area as well as those responsible for fire protection to determine the highest priority areas to be treated. Areas to be cleared will be clearly marked and after a Request for Proposals has been put out, the FSCNC will select a clearing contractor to complete the fuels reduction work. The end result will be safer ingress for firefighters and egress for residents during a wilfire.

Event 2: Roadway marking. The FSCNC plans to work with landowners and firefighters in the area to determine the most critical areas in which to place mileage markers. Many of the roadways in the area are unpaved and poorly marked, thus making it difficult for those attempting to report a fire or other emergency, to accurately report their location to dispatchers. As well, many who recreate in the area are not familiar with the geography of the area, thus creating an even greater hardship in attempting to report an emergency, Durable mileage markers will help to alleviate this danger.

17 YUBA COUNTY FOOTHILLS WATER SUPPLY PROPOSAL

BACKGROUND: Due to the rural make-up of Yuba County, most of the communities do not have a centralized water system. Water for fighting fires must come from ponds, creeks, pools etc… This project would establish at least two strategically located 10,000 gallon tanks in each of the foothill fire districts.

Yuba County is a very rural county. Other than one medium sized city, Yuba County is characterized by numerous small communities embedded in the foothills of the Sierra Nevadas. Each of these communities is the epitome of a wildland urban interface area. The areas covered by this project are identified in the local CDF Unit Fire Plan as being at risk to a costly and damaging fire. Yuba County is recognized as having one of California's lowest per capita income levels. The communities do not have the resources or the funding to establish the water supply systems to adequately protect them from a spreading wildfire. However there is a strong sense of community involvement and any money spent will generate an outpouring of volunteers to see the project through. Since 1997, there have been two extended attack fires that threatened a number of these communities and destroyed several structures.

During the fall months, the local water agencies shut their systems down in part due to the lack of available water. Yuba Water Agency charged the fire agencies over $15,000 for water used on the Pendola fire because they had to buy water back from other agencies.

PROJECT DESCRIPTION:

Event 1: Identify potential locations for water tanks. Work with the local fire districts and communities to determine locations that provide ease of access for fire fighting equipment, yet, discourage potential vandalism or misuse. The locations will need to be strategically located so firefighting equipment will be guaranteed an adequate supply of water until additional resources can arrive.

Event 2: Purchase and install water tanks. Based on the information gathered in **Event 1,** funding sources and the method(s) of installation will be determined. As this project has the potential to benefit a variety of districts, agencies, and private organizations, we anticipate a lot of participation and cooperation from the variety of stakeholders.

Event 3: Use fire personnel and volunteers to maintain the water tanks and the grounds they are placed on. Establish a maintenance schedule to keep the water storage tanks in a state of readiness.

The cost of this project will vary based on the number of locations available to site the water tanks, land costs, number of tanks, and tank costs. Original estimates were in the neighborhood of $8,000 per tank, which would bring the total project cost to **$80,000**. Yuba County has expressed some interest in assisting with project funding for this project.

18 OREGON RIDGE FUEL BREAK PROJECT

Actions involved in the proposed project:
The Oregon Ridge Prefire project was designed to provide a strategic location to attack a spreading wildfire. The fuel break spans the length of Oregon Ridge. It begins in the town of Challenge and continues past the Oregon peak lookout. It is over six miles long and up to 300 feet wide. Oregon Ridge is made up primarily of large land holdings owned and managed by timber companies (CHY, Soper-Wheeler, and Siller Bros). These companies immediately recognized the potential benefits of having a fuel break on their property. The Pendola Fire burned through this area a couple of years prior to the re-establishment of the fuel break. Had it been in place at the time of the fire, the threat to the communities of Dobbins and Oregon House would have been significantly reduced. The Oregon Ridge fuel break is the result of a cooperative program that has grown from a grass roots effort in the foothills of Yuba County. This project includes homeowner education, fuel break construction and roadside clearing to reduce fuel loads. There has been strong support and requests of these types of projects by the local community.

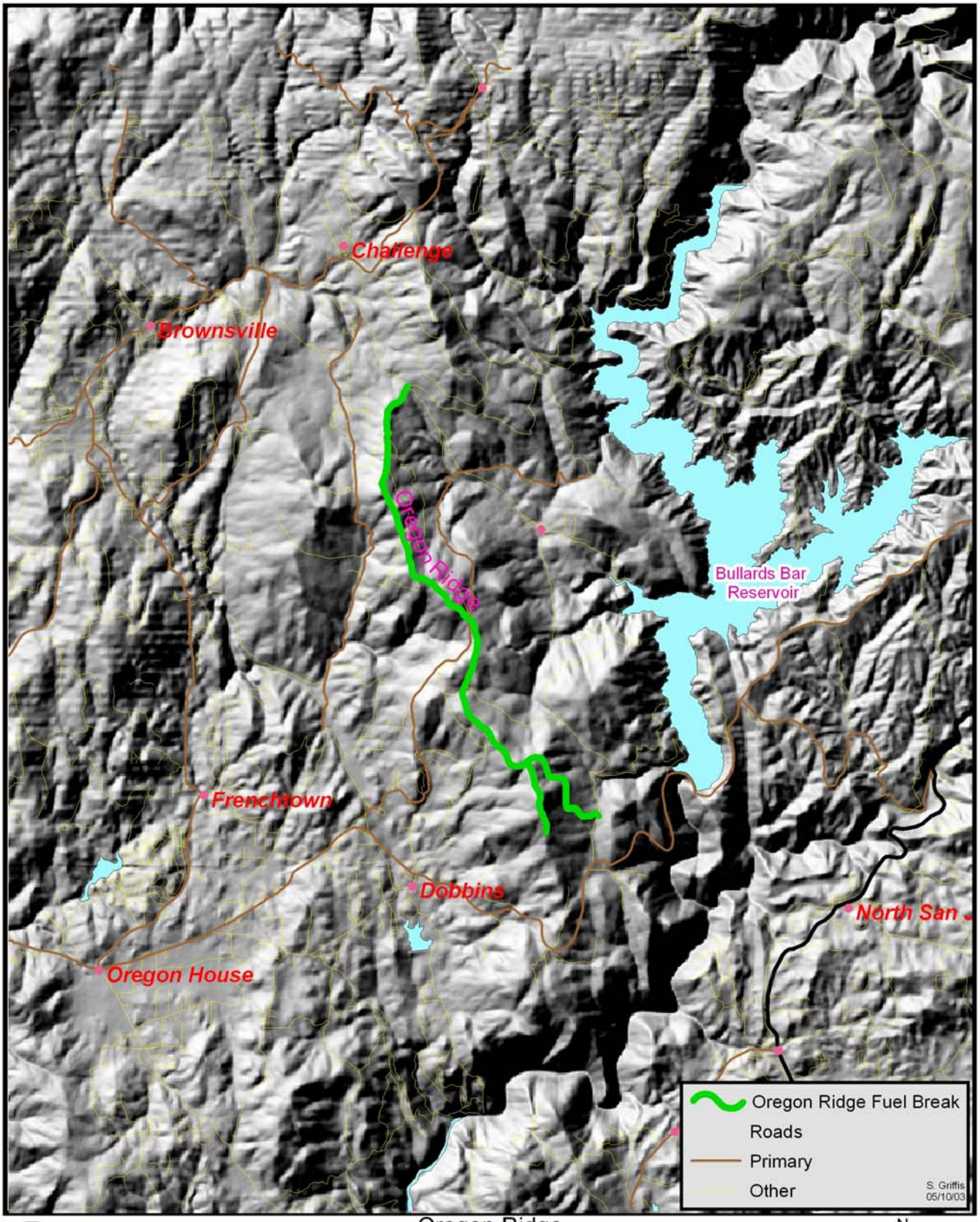
Event 1: A shaded fuel break along existing logging and fire access roads that are located along the ridge-top to allow fire fighting resources access and a location to effectively suppress an encroaching wildfire. Using existing roads for the location of the shaded fuel breaks takes advantage of the area occupied by the road surface that is devoid of all vegetation. Modifying the fuels for a distance up to 125 feet on both sides of the existing road will give an effective shaded fuel break width of approximately 300 feet. The location of these shaded fuel breaks will allow ready access and a strategic defensive position for fire suppression resources and facilitate long term maintenance of the fuel break.

Justification: This project will result in a direct reduction of the fire hazard to the communities of Dobbins – Oregon House, Brownsville, and Challenge.

Much of the work on this project has been accomplished with funds from Prop 204 and some private funds. Total Project cost estimate **$50,000**.

Potential Stakeholders to participate in Cost Sharing to Fund the Project:

- Yuba County
- Yuba River Watershed and FireSafe Council
- Local Service Groups
- Tahoe National Forest
- Plumas National Forest
- Natural Resources Conservation Service
- Feather River Air Management District
- Dobbins - Oregon House Fire Department


Challenge
Brownsville
Oregon Ridge
Bullards Bar
Reservoir
Frenchtown
Dobbins
North San
Oregon House
Oregon Ridge Fuel Break
Roads
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Other
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19 YUBA COUNTY PUBLIC WORKS ROADSIDE CLEARING PLAN

Actions involved in the proposed project:
Roads side clearance projects that will benefit the various foothill community's fire protection and traffic safety have been identified by the cooperative efforts of CDF, USFS, and the Yuba Watershed Protection & Fire Safe Council. Through a system of prioritization and cooperation the Yuba County Department of Public Works (YCDPW) will direct their roadside clearing efforts to those roads identified as having the greatest potential for improving fire safety, evacuation, egress, and access.

Event 1: A priority list of roads will be provided to the YCDPW. They will then direct their roadside clearance crews to direct their efforts on the roads based on the established priorities. Under the current plan, it is anticipated that twelve to fifteen miles will be accomplished this coming fiscal year and there are a total of eighty-eight miles identified for treatment.

Initial funding for this program was accomplished through Proposition 204 funds through the Fire Safe Council. Now that those funds have been expended YCDPW is continuing the program in coming fiscal years with partial funding through HR 2389 Title III funds and general gas tax revenues. The continuance of the funds is uncertain so currently the planning extends for the next five years. However, if additional funds become available they will be directed to the program and the list of roads may be expanded.

Justification: This project will result in a direct reduction of the fire hazard to the homes immediately adjacent to the identified roads and will provide enhanced protection to the communities of Dobbins – Oregon House, Brownsville, Challenge, Loma Rica and many more.

Potential Stakeholders to participate in Cost Sharing to Fund the Project:
- Yuba County
- Local Service Groups
- U.S. Forest Service
- Feather River Air Management District
- Yuba Watershed Protection & Fire Safe Council

Estimated project cost is $**950,000**. To date over $200,000 has been spent on the project. The majority of which came from Prop 204. This year $58,500 is being contributed from HR 2389 funds and $30,000 from gas tax revenues for a total of $88,500.

20 Desired Future Condition

The population growth in the project areas will set the guidelines for the respective desired future conditions. Currently, the goal is to establish buffers for a minimum of thirty feet around each structure that resemble a Fuel Model 8 with an additional buffer similar to a Fuel Model 9 for another seventy feet. This would provide an overall buffer of one hundred feet around each structure where fire behavior would be significantly reduced due to the lack of ground fuels. Currently, as few as ten percent of the homes within the project areas meet the FireSafe standards. As that number approaches 100 percent, a large fuel reduction area will be created. This will ultimately result in an overall decrease in fire behavior in these areas; thereby, improving the fire services ability to extinguish the fires in the initial attack stages.

The goal of the roadside fuel reduction areas is to improve ingress and egress for the communities and develop defensible locations to be used by fire suppression resources to suppress oncoming wildfires. Any fuel break by itself will NOT stop a wildfire. It is a location where the fuel has been modified to increase the probability of success for fire suppression activities. Ground resources can use the location for direct attack or firing out. Air resources can use the location for fire retardant drops. (see Appendix D for an example shaded fuelbreak prescription.)

Action Plan

Currently all of the priority projects identified in this plan are in some stage of implementation. The Placer County Projects have received over $600,000 funding through Proposition 204 and the National Fire Plan. There is also a chipper module working with the landowners throughout Placer County to aid in fuels reduction. Placer County funds ½ PY for a Pre-Fire Planner.

In Nevada County, the Fire Safe Council Coordinator position is now being funded by the County, the Forty-Niner Project has been awarded $860,721.00 by the Federal Emergency Management Agency through the State Office of Emergency Services; and, a local fire district has undertaken the Alta Sierra Project. The Nevada County Consolidated Fire District (NCCFD) is currently doing inspections and enforcing the requirements of PRC 4290. Along with Nevada County and the Northern Sierra Air Quality Management District, NCCFD is providing chipper support to the residents that complete their clearance requirement. Also, CDF and the National Fire Plan have dedicated over $150,000.00 towards fuels reduction around residences in western Nevada County. The CDF and Nevada County have a contract to provide a Pre-Fire Planner at the county level and the position is considered a great success.

Several miles of shaded fuelbreak work have already been completed in the Ure Mountain and Oregon Ridge Projects in Yuba County. The recent Pendola and Williams fires have spurred the interests of the residents and brought home the importance of meeting FireSafe standards.

The Unit is constantly re-evaluating our projects and developing a plan of action with the stakeholders of any potential new projects. Each of the above projects is currently being viewed on a three-year timeline as that is what the funding periods are limited to.

21 Battalion Level Prevention and Prefire Management Programs for the Coming Year

Battalion 10

(Dry Creek Area)

Summary: The Dry Creek Battalion serves a 41 square mile area with a population of approximately 5000 residents. The Battalion is located entirely in the LRA but has significant wild land fire potential. We will continue our high profile prevention program within the Battalion. In 2003 there were a total of thirty-nine wildland fires within the Battalion.

Fire Safe Programs

The Placer County Fire Protection Planner will continue to provide building plan fire and life safety reviews for PRC 4290 and uniform fire code regulations.

Burn Permit Administration

Issuing points for Le 62's will be CDF/Placer County Fire Station 100. The local pollution control district determines burn hours. Pre-inspections will be provided on a requested or as needed basis. With each permit written, a Placer County Air Pollution Control District's Residential Open Burning informational sheet will be included. A copy of the permit will be filed at Station 100.

Defensible Space

The Battalion 10 goal will be to target areas within the Battalion that have a significant wild land fire threat and inspect 100 homes using the PRC 4291 program, although all areas within the Battalion are LRA. Station 100 personnel will concentrate on the Central Ave., Vineyard Rd. PFE Rd., Walerga Rd., and South Brewer Rd from West Sunset to Baseline. A five-year cycle through the significant wild land fire threat area will provide education and prevention information to the affected homeowners.

Power line Inspections

Inspection of power lines will occur during the PRC 4291 inspections. Staff will advise the Battalion Chief of a violation, the Battalion Chief will coordinate an inspection by the Unit's Fire Prevention Bureau.

Public Education

School programs- Station 100 staff provides fire safe presentations to schools within the Battalion. Age specific fire prevention material will be handed out at each presentation.
Parades- The engine company staff will display the engine so members of the public can inspect the engine and equipment. Staff will hand out fire prevention material and discuss fire prevention issues.
Business fire safety programs- Station 100 staff will provide instruction on the proper use of fire extinguishers to local businesses within the battalion.
Fire Prevention Signs- Station 100 request's three fire prevention signs, which will be placed in target areas during the fire season.
Station 100 Message Board- timely messages will continue to be placed on the message board at the station.
Community BBQ and Pancake Breakfast- staff will assist as needed and provide Fire Prevention material and advice.
Placer County Fair Roseville- assistance will be provided to the Fire Prevention Bureau to staff a Fire Prevention booth at the Placer County Fair.

Battalion 11
(Auburn & Foresthill Area)

There were a total of 132 wildland ignitions in Battalion 11 in 2003. The Battalion personnel will work to reduce fire ignitions and reduce damage by fire occurrences by actively participating in public education programs, fuel reduction programs, and homeowner education programs. These efforts will center in the communities of Auburn, Foresthill, Newcastle, and Christian Valley. The components to meet these goals are as follows:

1. 4291 Inspection Program: (400 hrs)
   Support grant funded inspectors conducting residential inspections for compliance for PRC 4291. Inspections will occur in the general Auburn area. Include information on reducing equipment use and debris fire ignitions.

2. Pre-Fire Chipper Program: (200 hrs)
   Support local residents through the local Fire Safe Council in maintaining residential properties free from flammable vegetation.

3. North Fork - Drivers Flat to Long Point Fuel Break: (2 days)
   Extend the new fuel break along the North Fork of the American River.

4. McKeon - Ponderosa Fuel Break: (2 days)
   Continue to maintain existing fuel break.

5. Lower Lake Clementine River access road maintenance: (2 days)
   Improve and continue to maintain deteriorating fuel break.

6. Lower Lake Clementine Ridgeline Fuel Break: (10 days)
   Re-institute fuel break on the upper ridge of Lake Clementine.

7. Engine Company 4291 Inspections: (30 hours)
   Conduct inspections for residential compliance for PRC 4291.

8. State Park Control Burn - Foresthill Bridge: (3 days)
   Maintain fire control lines and conduct control burn, as conditions allow, below the Foresthill Bridge, prior to the 4th of July. This area constantly suffers from arson fires as burning debris and fireworks are thrown from the bridge.

9. Programs: (9 days)
   - Foresthill "Wildfire on the Divide": Attend and put on a static display using CDF engines and helicopter.
   - Meadow Vista Pioneer Day Parade: Enter 1 CDF engine in the parade.
   - Fourth of July Parades - Foresthill and Auburn: Participate in both parade celebrations.
   - Auburn Air fest: Attend and put on a static display during the Air Fest.
   - Gold Country Fair: Construct and staff the fair booth display.
   - Fire Prevention week open house: Conduct open house tours of the CDF / Placer County Fire Facility, Auburn Headquarters.
   - Fireworks Patrols: With use of engines, paid staff, and VIP's conduct high visibility neighborhood patrols.

10. Burn Permit Administration: (Various)
    Headquarter staff, station staff, and VIP staff will administer dooryard burn permits to the public.

11. Greater Auburn Area Fire Safe Council (50 hours)
    Maintain continued participation in the Greater Auburn Area Fire Safe Council, emphasizing the work on defensible space.

12. Auburn Dam Area Shaded Fuel Break (4 crew weeks)
    Work with the Bureau of Reclamation in the first stages of constructing a strategic shaded fuel break on the contract lands of the Auburn Dam Project and adjacent private lands.

CONCLUSION:

The Auburn-Foresthill Battalion continues to maintain excellent working relationships with various community fire agencies, public service groups and Fire Safe Councils. The cooperative effort of all entities is maximized in efficiently educating the public on how to protect themselves and their property from the ravages of fire. The continued relationship with fire agencies assures a rapid and efficient response to fire threats in the communities.

Battalion 12
(Nevada City & Higgins Area)

Battalion Goals: Reduce the number of fire starts through public education and to reduce the potential of a large fire through vegetation management.

1. Public Education:

Public education continues to be a priority within Battalion 12 to reduce the number of fire starts. The action plan for public contact and education is as follows:

A. Burn Permit Administration
CDF-500 hrs. VIP-1200 hrs. FPD150 hrs

Many of the debris fires with-in the Battalion resulted from debris burning during the portion of the year when burn permits are not required, indicating there is a better need to educate the public on proper debris burning methods.

CDF LE-62s (Dooryard Burn Permits) will be issued by cooperators consistent with past practice. Issuing points will be CDF Station's 20 and 21, Nevada County Consolidated FPD Station's 85, 87, 88 and 89, Peardale/Chicago Park FPD Station's 1 and 2, Higgins FPD Station's 21, 22 and 23, Ophir Hill FPD Station 28 and 49'er FPD Station 84. Only those personnel trained and authorized by the CDF Battalion Chief will be allowed to issue the LE-62s. The emphasis will be a placed on the terms of the permit, the responsibilities of the permit holder, and alternative methods of vegetation disposal.

LE-5's and Project permits on SRA will be issued after an inspection by an authorized employee of CDF.

B. Public Education Events
CDF-300 hrs. NCFSC-600 hrs. Local Govt.-200 hrs. VIP-100 hrs

The CDF staff in the Battalion is involved in numerous public education programs. Many of the programs are a cooperative effort with other agencies. The public education program includes school programs, career days/health fairs, youth group tours, home and garden shows, homeowner/community groups, fire safe work shops, fire prevention week and the Nevada County Fair.

On going events through out the year:

- Fire Safe Council & Community Groups – A representative from CDF will attend as needed, engine company may be needed for demonstration.
- School Programs – CDF & Fire District personnel, VIP's.
- Career Days (Bear River & Nevada Union High Schools) – CDF & Fire District personnel.
- Home & Garden Shows – CDF representative will attend and assist the Fire Safe Council as needed.
- Fire Safe Work Shops / Fire Prevention Week – CDF & Fire District personnel with engine for display and demonstration.
- Lake Vera Camp Grounds – CDF & 49'er personnel will meet with each camp administrator prior to the beginning of their season (usually May).
- Air Fest- CDF & Fire District with engines for parade and display (July)
- Nevada County Fair – CDF personnel & VIP's will staff the booth daily. CDF will have engines and crews for display & demonstration (August)
- Higgins FPD Open House – CDF & District personnel and equipment (May)Vegetation Management / Defensible Space

C. Fire Prevention/News Releases:

CDF will continue to utilize a local radio station, the local news paper as well as the Lake of the Pines/ Alta Sierra monthly publication and the Nevada County Fire Safe Council's newsletter to educate the public on fire safe issues. The focus over the past years has been the safe use of mowers. There where 20 fire starts from equipment use last year, only four (4) where caused by mowers, a reduction from the past, so the message is working. In addition CDF contacted rental yards with prevention material and to ensure compliance with spark arrestor laws.

D. PRC 4291 inspection:

The inspections serve a dual purpose, vegetation management and public education. A seasonal fire prevention inspector, CDF engine companies, or a local government fire prevention officer within the Battalion conducts the 4291 inspections. Last year there were just over 1500 residents inspected in Battalion 12. The focus of the inspections is defensible space compliance and public education.

2. Vegetation Management: The vegetation management programs are directed at reducing the potential of a large fire and reducing the damage from a large fire. CDF-8,850 hrs. CDF/FEMA-1,800 hrs. NCFSC-850 hrs.

A. PRC 4291 inspection:

The goal this year is to continue using the seasonal fire prevention inspectors, CDF engine crews and 49'er and Nevada County Consolidate F.P.D. personnel to inspect around 1500 residents for defensible space compliance.

B. Hazard Reduction Programs:

CDF has extended the defensible space, chipping program for another year. The funding for this program will end on Dec. 31, 2004. Last year the program treated over 800 parcels within the project area. The projection for this year is to at least that many once again. This spring we will be starting work on the shaded fuel break portion of the project, the plan is to treat approximately sixteen (16) miles of road ways in the project area.

CDF continues to assist the Fire Safe Council with funding for their defensible space chipping. They treated 533 parcels last year and plan to do about the same number this year. The Fire Safe Council has also been successful with a drop off program in the Alta Sierra Subdivision.

BLM and CDF are working together to complete a shaded fuel break in the Red Dog – You Bet Rd. area. Work should began by next spring and will tie in with fuels reduction work provided by the chipper program

A Schedule 'A' Fire Protection Planner works with developers and the Planning Department on land use and PRC 4290 issues, ensuring that adequate access/egress, fuel modification and other fire protection standards are met.

Battalion 13

(Colfax & Alta Area)

Battalion 13 has identified two of the largest causes of fires for the year 2003 as equipment use and debris burning. These two accounted for 58% of all starts. The following goals are outlined to help reduce the ignition sources through public education and fuel management.

1. Fire Safe Programs CDF-600hrs GCFSC-400hrs

   Work with developers and the Planning Dept. via the CDF/Placer County Fire Protection Planner to ensure that PRC 4290 requirements are met or exceeded on all new construction. Participate in field inspections at BC and Company Officer level.

   Chief Brand along with Colfax CDF personnel participate in the Greater Colfax Area Fire Safe Council, meeting regularly and supporting any logistical and technical needs.

   This year with the Fire-Storm of Southern California, Chief Brand has been involved in multiple community meetings with regards to defensible space and fire safety. These programs will continue.

2. Burn Permit Administration CDF-500 hrs City of Colfax 100 hrs

   Alta and Colfax Stations issue approx. 800-1000 permits each year.
   All employees cover the compliance issues with every permittee. This year Colfax CDF will be issuing permits with-in the city limits of Colfax.
   There will be open hours during the winter. Burn hours will be implemented around May 1 and total restriction will start around July 1 depending on weather. The Ban will be lifted as per CDF in the fall at the end of declared fire season.

   LE-5 and Project permits on SRA will be issued with an inspection by an authorized employee of CDF.

   - **All permitees are given material covering air pollution rules and information about the free chipping program.**

3. Defensible Space CDF-500 hrs, GCFSC-300 hrs

   Within Battalion 13 we are targeting high hazard areas. Beginning first with areas in and around the Colfax High & Elementary schools with the cooperation of the school officials.

   The Alpine Meadows sub-division is the other large area that contract employees inspected this spring for Public Recourses Code 4291.

   We are in the process of using the CDF/Placer County Fire Hazard Mitigation (chipping) Program near the Colfax High School. This program is available to all residents requesting it.

   There have been contract inspectors, who work the communities within the battalion for LE-38 inspections. This is just one of the ongoing PRC 4291 programs in the battalion. This program is funded by grant funds from the National Fire Plan Monies. The stations will do any follow up inspections should they be needed.

   The Greater Colfax Fire Safe Council has been educating the public with meetings, coffee klatches and one on one contacts.

4. Railroad / Power Companies CDF-50 hrs

   CDF is in direct contact with Southern Pacific representatives on a regular basis. We are informed of any on-going maintenance and rail grindings on a monthly basis. Spot inspections are on-going and any problems are addressed accordingly.

   Powerline inspections will occur during the PRC 4291 inspections as inspectors look up and down while conducting their inspection, and where the lines are available. Powerline caused fires, within the Battalion, relating to negligence are insignificant and do not warrant the resources to follow up.

5. Public Education CDF-1000 hrs VIPs- 250 hrs GCFSC-400 hrs

   CDF staff are involved in numerous public education programs. The area is a well-known recreation area. The target audience is quite large and has proven to be receptive to various programs as follows:

   CDF is involved with Fourth of July parades at both Colfax & Dutch Falt.

   The local elementary schools are targeted for Smokey Bear programs.
   Recreational areas are frequently visited by CDF personnel, giving fire safe talks and handing out prevention material.

6. On going events through out the year CDF-450 hrs GCFSC-200hrs

   This year Caltrans has agreed to increase their fuel modification program from the Auburn Battalion to the Alta Area along Interstate 80. The units prevention bureau, and both the Auburn & Colfax Battalion Chiefs have met with Caltrans representatives regarding this program.

   Local cable access channel runs a banner on defensible space and other PRC 4291 issues.

   The CDF engine companies are up-dating pre-fire plans and conducting company inspections through-out the year.

   The local Battalion Chief works closely with the local Fire Safe Councils on various issues.

   Chief Brand is continuing to work closely with the media, regarding small engine, burning and fire safe issues.

CONCLUSION

While the Colfax/Alta Battalion is not highly populated, the day to day traffic flow from the major East/West Freeway(Interstate 80) continues to be a problem, due to the fires that originate from the freeway. This continues to be a challenge and public awareness seems to be the best approach. The burn ban has helped dramatically with the debris burning starts along with continued public education.

Battalion 14

(Smartsville & Columbia Hill Area)

Battalion Goal: Reduce the number of equipment and debris ignitions throughout the Smartsville Battalion through public education and vegetation management.

1. Fire Safe Programs 200 hrs CDF 20 hrs VIP

   Work with developers and the Planning Dept to ensure that PRC 4290 requirements are met or exceeded on all new construction.

   Act as the CDF Representative on the Nevada County Fire Safe Council.

   Provide logistical support to the Fire Safe Council, through VIPs, to help them achieve the Council's goals.

2. Burn Permit Administration 250 hrs CDF

   Cooperators consistent with past practice will issue LE-62's. Issuing points will be CDF Station # 40 and #42, the Penn Valley Fire District, and the North San Juan Fire District. The Penn Valley Fire Protection District will issue at Station #44 and at the administrative office for those areas within Penn Valley and Rough & Ready. The North San Juan Fire District will issue out of Station #3 on Tyler Foote Crossing Road. This process will ensure that homeowners can get a permit when the CDF station is not staffed. Burn hours will be determined by CDF outside the city limits and the individual cities within their boundaries. There will be open hours during the winter. Burn hours will be implemented around May 1 and total restriction will start around July 1 depending on weather. The Ban will be lifted as per CDF in the fall at the end of declared fire season.

   An authorized employee of CDF or the USFS will issue LE-5 and Project permits on SRA.

3. Defensible Space 640 hrs CDF

   Section 4291 of the Public Resources Code will be addressed on SRA. A County funded inspector will be used to cover door to door in all areas of SRA within the county. High occurrence fire areas will be targeted.

   The CDF stations and Battalion Chief will continue to support this activity with logistical support, inspections and citations, if needed.

4. Railroad / Power Companies 100 hrs CDF

   Powerline inspections will occur during the PRC 4291 inspections as inspectors look up and down while conducting their inspection, and where the lines are available. The Prevention Bureau Chief will be meeting with Powerline Representatives to discuss PRC 4292. Past spot inspections indicate no violations, however fire occurrence has become significant.

5. Public Education 200 hrs CDF 20 hrs VIP

CDF staff is involved in numerous public education programs. The area is a well-known recreation area. The target audience is quite large and has proven to be receptive to various programs as follows:

School Programs - An interagency effort targets all schools in Penn Valley, reaching grades K - 12 in the spring.

Fourth of July Parade - CDF will have an engine and an antique engine in this year's parade.

Air Fest - A CDF engine will attend in July.

Fire Fighters Annual Picnic - A CDF engine and crew will attend this event.

Beale AFB Fire Prevention Week – CDF will provide an engine for the parade and static display for public education.

6. On going events through out the year 2000 Hrs CDF 20 Hrs VIP

Lake Englebright Camp Ground - The Army Corp. of Engineers and CDF will construct fire lines around all shoreline campsites starting in May.

Malakoff State Park Camp Ground - A CDF engine will address campers during special events planned by the camp area.

Spenceville Rifle Range – A fuelbreak will be constructed around the rifle range during May, and the interior burnt.

Point Defiance/Rices Crossing Fire Access Roads – Maintenance of these roads will be done periodically to ensure fire access for equipment.

Channel 44 - The local message station will run the defensible space tape throughout the summer and event specific messages on request.

Fuel Break/Reduction - Fire crews will continue to support the communities of North San Juan, Nevada City, and Penn Valley in a comprehensive fuel reduction and fuel break program. The primary focus will be the Columbia Hill Fuelbreak and VMP burns.

CONCLUSION

Battalion 14 is quite busy with prevention activities. The strong relationship between CDF, Penn Valley Fire Protection District, Smartsville Fire District, North San Juan Fire District, USFS and other local FD's has provided for a professional and comprehensive program that has shown benefits in public awareness and concern. As shown in the fire cause analysis, wildland fires caused by children "playing with fire" and "smoking" have been negligible, indicating that the battalion's fire prevention efforts directed at school age children have been very successful.

Battalion 15

(Truckee & Donner Summit Area)

The Town of Truckee was incorporated in 1994, taking with it 21,000 acres of SRA . This year a contract for suppression on 4,880 acres is currently active, and is anticipated to be so for the 2004 fire season. We will continue our high profile prevention program within the Town limits.

FIRE PREVENTION PROGRAMS

Martis Peak Lookout Project
Martis Peak was put into service as a detection platform on July 1st, 2003, and was staffed daily through November 3rd. Martis Peak reported 42 smokes in 2003, at distances of up to 30 miles. Martis Peak also recorded the locations of numerous lightning strikes, and was instrumental in tracking the progress of developing thunderstorms. Martis Peak had several first reports on vegetation and vehicle fires in 2003. The operating agreement with the USFS will remain in place for 2004 with minor changes. We will continue to promote the lookout through the local media and community groups this spring to generate interest in volunteer staffing seven days per week. All volunteers will be signed up as Volunteers In Prevention (VIP). Northstar fire has funded a lookout position at Martis Peak since 2002, and has expressed interest in funding a position for the 2004 fire season. This will be a four day per week position, so the remaining three days per week will require staffing by VIPs.

Fire Safe Programs
Section 4290 of the Public Resources Code will continue to be enforced in Sierra County. Based on past history, the potential for additional, significant population growth within Sierra County is limited. Rapid growth continues in the eastern portions of Nevada and Placer Counties which, results in a significant workload.

Burn Permit Administration
LE-62's will be issued by cooperators consistent with past practice. Issuing points will be CDF Station 50, USFS at the Truckee Ranger District Headquarters, and Donner Summit FD. The Truckee Fire Protection District will issue at Station 91 and 92 for those within the Town limits and SRA within the district. This process will ensure absentee home owners can get a permit when the CDF station is not staffed. Burn hours will be determined after consideration for all fire entities on the eastside. There will be open hours during the winter. Controls will start about May 1 with burning being allowed during daylight hours only, and total cancellation July 1. The Ban will be lifted as per CDF in the fall with daylight burning hours only, preferably in the morning.

LE-5 and Project permits on SRA will be issued with an inspection by an authorized employee of CDF or the USFS. Within the Town limits, the Truckee Fire Protection District will issue.

Defensible Space
Section 4291 of the Public Resources Code will be addressed on SRA by Station 50 personnel. Assistance will be given to the Truckee Fire Protection District (TFPD), the North Tahoe Fire Protection District (NTFD), Meeks Bay FD, Alpine Meadows FD, and Squaw Valley FD to facilitate inspections on SRA within USFS Direct Protection. This will be done by supplying the Inter Agency Inspection Form LE-38, prevention material, and personnel to assist in mass inspection programs.

Northstar FD has a comprehensive inspection program in Placer County within SRA that has achieved 100 percent compliance. The CDF engine and Battalion Chief will continue to support this activity with logistical support, inspections and citations, if needed.

Railroad / Power Companies
Past spot inspections indicate no violations and fire occurrence is very low. Inspections of the Railroad will be handled by the USFS and findings will be turned over to the Battalion Chief.

Powerline inspections will occur during the PRC 4291 inspections as inspectors look up and down while conducting their inspection, and where the lines are available. The Battalion Chief will be meeting with Power Company representatives to discuss PRC 4292. Powerline caused fires relating to negligence are insignificant and do not warrant the resources to follow up.

Public Education
CDF staff are involved in numerous public education programs. The Truckee-Tahoe area is a world known resort area. The target audience is quite large and has proven to be receptive to various programs as follows:

Kids Day - A booth with Smokey and prevention material relating to children will be at this year's event in May. This is an interagency effort involving most of the area fire departments.

School Programs - An interagency effort by CDF, TFPD, and the USFS, targets all schools in Truckee, reaching grades K - 5 in the spring. Students create fire safety posters for display on roadside fire prevention signs.

Fourth of July Parade - CDF will have an engine and an antique engine in this year's parade.

Truckee Rodeo - CDF engine and crew will hand out prevention material. Smokey will make an appearance.

Reno Rodeo - Assist Sierra Front with staffing a booth.

Fire Fest - A CDF engine will attend in October in South Lake Tahoe.

Donner Summit Fire Annual Picnic - A CDF engine and crew will attend this event.

ON GOING EVENTS THROUGHOUT THE YEAR
Tahoe Re:Green - An on going process assisting allied agencies around the Lake Tahoe Basin. Projects include: fuel reduction on state owned and conservancy lands and PRC 4291 cooperative inspections.

Seed Packets - Fight fire with flowers program. Seed packets with CDF logo are given out at events to promote wild flowers around homes to stop the spread of fires, and to promote the environment.

Channel 6 - The local message station will run the defensible space tape throughout the summer and event specific messages on request.

Fuel Break/Reduction - Fire crews will continue to support the communities of Tahoe Donner and Northstar in a comprehensive fuel reduction and fuel break program.

Fire Guard - During 2003, the feasibility and practicality of a fire guard along the Westbound lanes of I-80 between Truckee and Donner Summit will be investigated with proposed start-up during the 2004 fire season. The lead agency will be the Tahoe Donner Homeowners Association, with crew support provided by CDF as needed.

CONCLUSION
Battalion 15 is quite busy with prevention activities. The strong relationship between CDF, Truckee Fire, Northstar FD, USFS and other local FD's has provided for a professional and comprehensive program that has shown benefits in public awareness and concern. As shown in the fire cause analysis, wildland fires caused by children "playing with fire" has been negligible, indicating that the battalion's fire prevention efforts directed at school age children have been very successful.

Battalion 16

(Loma Rica & Dobbins Area)

Battalion goal(s): Continue efforts to maintain the current low fire incident rate and reduce the potential for occurrence of large and damaging fires. These objectives will be realized through an intensive program of public education, fuel reduction and risk reduction.

1 COMMUNITY INVOLVEMENT

Public relations and interaction between CDF and the community is a key factor in promoting a public understanding of CDF's fire prevention role. Each year the Battalion 6 staff will:

Station 61 will continue a year round coordination of the sales and installation of street and address signs and house numbers.

Station 60 and 61 along with the volunteers from the LR/BV C.S.D. will participate in local community activities:

Wild Hog Glory Daze – Loma Rica Lions Club – May

Brownsville Mountain Fair – Foothill Fire Department – July

Bok Kai Parade – Marysville – March

Beale Fire Prevention Week – Beale A.F.B. – November

FIRE PREVENTION AND AWARENESS

An ongoing program, which furthers the public's awareness of the wildland fire problem and develops public habits conducive to fire safety, will be provided. Annually the Battalion 6 staff will:

During the months of May and June the Battalion Chief will release (4) four general fire prevention news releases to the Appeal Democrat and the Rabbit Creek Journal newspaper.

During fire season Station 60 and 61 will conduct their physical fitness training activities in a different location of their response areas on a daily basis. Every two weeks Station 60 will cover the Rackerby area.

Post fire prevention signs as shown in exhibit – III-2.

Volunteers In Prevention (VIP) will conduct school programs each winter at the following schools: Yuba Feather, Dobbins, Loma Rica, and Browns Valley. Station 60 and 61 will provide assistance and an engine at each program

Station 60 and 61 will be expected to conduct fire prevention programs when requested by local groups, provided fire activities allows for the commitment. Whenever possible these requests can be deferred to the V.I.P. program.

The Battalion Chief will participate as an acting member on the Yuba County Fire Safe Council. His role will be to provide professional guidance to the areas for Fuel Breaks, Community Water Systems, seeking grants to assist the community for the funding of fire Safe Projects.

Station 60 and 61 during the first few weeks of fire season will conduct PRC 4291 inspections in predetermined areas. The inspections will focus on home safety and fire prevention, stressing safety while using power equipment and debris burning.

Coordinate with Loma Rica/Browns Valley CSD personnel and incorporate a fire prevention and burning permit issuance program to the local responsibility areas of the fire district. A door to door program to promote the reflective house numbering program.

BURNING PERMIT PROGRAM

It must be recognized that every other year contact with the burning permit permittee provides CDF with the best opportunity to present a fire prevention message. This contact will not become an assembly line procedure, emphasis will be placed on the terms of the permit, and time will be taken to send a general fire prevention message.

In March the Battalion chief will update the Yuba County Burning Permit Issuance Plan in conjunction wit the Feather River Air Quality Management District.

In April the Battalion Chief will train the V.I.P.s in burning permit issuance and ensure that CDf employees have reviewed the plan.

COOPERATORS MEETINGS

As shown in Exhibit lll-3 meetings will be conducted with local cooperators covering fire prevention specific to their facilities or agency.

FIRE ENGINEERING

Throughout the year the Battalion Chief will reduce the wildland fuel loading by reviewing all development projects within the SRA and require developers to instill fuel reduction practices.

The goal this year is to burn a minimum of 800 acres on the Richards VMP Project.

This year there will be a strong effort to continue with Prop 204 Grant Projects.

The Oregon Ridge Fuel Break

The Brownsville area fuel modification project

Yuba County Road fuel modification project

POWERLINE INSPECTIONS

Each spring the Battalion Chief will spot check 1/3 of the power lines within the battalion, a map will be maintained to ensure that a different area is inspected each spring.

CONCLUSION:

Battalion 6 will continue to take a proactive stance with fire prevention efforts in the Yuba County foothills. With a continued increase in debris escapes the focus will be in educating the foothill citizens on proper burning techniques. There has been several control burn escapes during the winter months when permits are not required. The process will educate landowners on the necessity of proper clearances and remaining on the premises in order to maintain control of their burning project. A springtime message will go out to the public reminding them to check spark arresters before using equipment in the dry fuels, with a strong reminder to mow during the cooler hours of the day. A concentrated effort between the local fire district and CDF to get our fire prevention message out to the public will insure we continue to have low fire occurrence in the battalion.

Battalion 17

(Lincoln, Paige, Sheridan, Fowler & Thermolands Area)

The Lincoln Battalion serves a large area of SRA and LRA. There are several areas that would be threatened by a significant wildland fire. Personnel will be actively inspecting property to assure compliance with PRC 4291 and to educate the public about the dangers of wildland fires and how they can assist us in reducing the threat that they pose.

Fire Safe Programs

The Placer County Fire Protection Planner will continue to provide building plan fire and life safety reviews for PRC 4290 and uniform fire code regulations.

Burn Permit Administration

Issuing points for Le 62's will be CDF/Placer County Fire Station 70 and Station 77. The local pollution control district determines burn hours. Pre-inspections will be provided on a requested or as needed basis. With each permit written, a Placer County Air Pollution Control District's Residential Open Burning informational sheet will be included. A copy of the permit will be filed at Station 70.

Defensible Space

The Battalion 7 goal will be to target areas within the foothills that have a significant wildland fire threat and inspect 400 homes using the PRC 4291 program. Station 70 personnel will concentrate on the Fowler-Fruitvale, Thermalands area of Placer County. The homes within the following road boundaries will be inspected this coming spring: Andressen Road, Meadow Lark Lane, Rolling Hills, Karchner Road, Thousand Oaks Road, Dornes Road, Valley View Circle, Valley View Drive, McCourtney Road north of Thermalands, Virginiatown, and Wise Roads. Campgrounds at Camp Far West Lake will be inspected prior to June 15th for compliance of related Forest and Fire Laws. A five-year cycle through the significant wildland fire threat area will provide adequate education and prevention information to the affected homeowners.

Power line Inspections

Inspection of power lines will occur during the PRC 4291 inspections. Staff will advise the battalion chief of a violation, the battalion chief will coordinate an inspection by the Units Fire Prevention Bureau.

Public Education

- *School programs*- Station 70 staff along with the Lincoln group; provide fire safe presentations to schools with in the battalion. Age specific fire prevention material will be handed out at each presentation.
- *Parades*- each year the City of Lincoln invites Station 70 to their annual parade. The engine company staff will display the engine so members of the public can inspect the engine and equipment staff will hand out fire prevention material and discuss fire prevention issues
- *Business fire safety programs*- Station 70 and Station 77 staff will provide instruction on the proper use of fire extinguishers to local businesses within the battalion.
- *Fire Prevention Signs*- Station 70 staff provide maintenance of several signs within the Battalion. Station 70 staff request 2 additional fire prevention signs, which will be placed in target areas during the fire season.
- *Thunder Valley Casino*- Station 77 in cooperation with Thunder Valley Casino will provide fire prevention material and information to customers of the Casino during National Fire Prevention Week.

Fire Cause Reduction Plan

Battalion 17's primary fire causes where arson and equipment.
Arson- The Battalion Chief will seek assistance from the Fire Prevention Bureau to provide preliminary fire investigation training to assure accurate fire cause investigations.
Equipment Use- To reduce the amount of equipment caused fires in Battalion 17, station staff will visit Hardware, Home remodel and Homeowner Rental stores within the Battalion to provide Fire Prevention material and advice.

Battalion 19

(City of Marysville and CSA/Hallwood/District 10)

Battalion Goals:
Battalion 19 will work to reduce fire ignitions and reduce damage by fire occurrences by actively participating in public education programs, business inspections, and plan review process. These efforts will be provided to the City of Marysville, Hallwood/District 10 and to communities within the Yuba-Sutter area. The components to meet these goals are as follows:

1. Commercial Business Inspection. (100 hrs)
   Inspect local business, and code enforcement.
2. Fire Preplans.
   Update fire preplans for all business. (100 hrs)
3. Plan Review
   Conduct fire plan review on building projects within the city and district. (60 hrs)
4. Public Education (300 hrs)
   Participate in public education programs within the City and Yuba-Sutter Area.
   Marysville Joint Unified School District – Provide public education along with participation in School organized functions i.e., Read-a-Thon, Athletic events, High-School ROP program, Lunch visits, Fire Station tours, Fire department class visits, School Safe program planning.

   Senior Safety-Provide fire safety training and public education to local senior care facilities.

   City sponsored Activities- Christmas Parade, Fourth of July Parade, Gold Rush Days, Peach Festival, Hot Rod Jamboree, Marysville Rodeo, and the Yuba-Sutter Fair.

   CERT Training- Assist Police department in Community Emergency Response Teams

   Participate in Fire Prevention week with Fire Station Open House

   Participation in local TV access channel presentation of fire safety programs for July 4th and Christmas.

   Participation at Marysville Motocross, providing prevention and EMS standby duties.

5. Campfire and Burn permit issuance (60).
   Issue campfire permits and provide local burn policy information.

CONCLUSION:
The Marysville Battalion continues to interact with its community emphasizing fire safety. Marysville maintains a good cooperative relationship among its neighbors and collectively provides a strong fire safety message that benefits all. This message helps protects its citizens and the surrounding areas.

22. Completed Projects and Fire Plan Successes

Since the initial implementation of the Fire Plan process in NYP a number of projects have been completed to some degree. Through these projects CDF and its cooperators are able to demonstrate the success of the program. The following projects have been completed. There is a brief summary after each one that will identify if the initial goals were accomplished and what the Unit feels the results of each project will be.

The projects that have been completed prior to June of 2002 include:

Foresthill Fuel Breaks
Meadow Vista/Applegate Fuel Breaks
Gillis Ridge Fuel Break
Alta Sierra Fuels Reduction Program (Ongoing)
Foresthill Fuel Breaks

Existing roads were used for the location of the shaded fuel breaks taking advantage of the area occupied by the road surface, which is devoid of all vegetation. Modifying the fuels for a distance of 25 feet on both sides of the existing road gave an effective shaded fuel break width of approximately 70 to 80 feet. The location of these shaded fuel breaks will allow ready access and a strategic defensive position for fire suppression resources and facilitate long-term maintenance of the fuel breaks.
Shaded Fuel Break Locations:

1. Yankee Jim's Road from Foresthill to the North Fork of the American River
    - Approximately 7.5 miles

2. Spring Garden Road from Yankee Jim's Road to the Foresthill Road
    - Approximately 3.5 miles

3. Ponderosa McKeon Road from the Foresthill Road to the Middle Fork of the American River
    - Approximately 5 miles

4. Foresthill Road from Ponderosa McKeon Road to Michigan Bluff Road
    - Approximately 12 miles

5. Area west of the town of Michigan Bluff from Chicken Hawk Road to a USFS fuel break.
    - Approximately 2 miles

The total area encompassed by the shaded fuel breaks is about 203 acres over a distance of approximately 30 miles.

URE MOUNTAIN PREFIRE PROJECT PROPOSAL

Actions involved in the project:
The Ure Mountain Prefire project was designed to tie in with prefire projects that have been undertaken by Yuba County, CDF, and the Dobbins – Oregon House Fire Department as a cooperative program. This project includes homeowner education, fuel break construction and roadside clearing to reduce fuel loads. There has been strong support and requests of these types of projects by the local community.

Event 1: Chipper support for homeowners. Home inspections will be conducted in the late spring and summer months. Residents who remove vegetation as a result of the inspections may need alternative ways to dispose of the material. Burn days will be limited due to air quality and fire hazard concerns. The proposed support for the homeowner is to hire a professional chipping service to follow up the inspections. The inspectors will notify the residents when the chipper and crew will be in their neighborhood. The homeowner can then clear the vegetation around their residence and bring it to the curbside. The crew will then chip the vegetation and deposit the material back onto the property. As a result of a grant by Northern Sierra Air Quality District, a similar sized subdivision in Nevada County offered this support during the summer and fall of 1996. It had a strong response from the community and was considered to be very successful.

Event 2: A series a shaded fuel breaks along existing roads and public utility right-of-ways that are located in strategic areas to allow fire fighting resources access and a location to effectively suppress an encroaching wildfire. In addition, the location of these fuel breaks will facilitate a safer evacuation of residents in this access-limited area should a large fire occur. Using existing roads and right-of-ways for the locations of the shaded fuel breaks takes advantage of areas that are devoid of all vegetation. Modifying the fuels for a distance of 35 feet on both sides of the existing roads will give an effective shaded fuel break width of approximately 100 feet. The location of these shaded fuel breaks will allow ready access and a strategic defensive position for fire suppression resources and facilitate long term maintenance of the fuel breaks. It will require coordination with both the county and affected property owners, but has extensive community support. The use of a mechanical masticator to do the initial heavy work, followed up by handcrews, has proven to be the most cost-effective way to accomplish the fuel breaks. The proposed fuels breaks would occupy approximately 420 acres.

Justification: This project will result in a direct reduction of the fire hazard to the 500 homes within the project and will provide enhanced protection to the communities of Dobbins – Oregon House, Brownsville, Challenge, Loma Rica and many more.

Potential Stakeholders to participate in Cost Sharing to Fund the Project:

- Yuba County
- Local Service Groups
- Natural Resources Conservation Service
- Feather River Air Management District
- Dobbins - Oregon House Fire Department

Gillis Ridge Fuelbreak

Allen Edwards retired after many years in State Service. He had decided to spend his time working with his sons on his family's timber property in Placer County. This property is located above the North Fork of the American River, a canyon known in the area for experiencing a number of major fires in the past. The combination of fuels, weather and topography all but guaranteed that history would eventually repeat itself and the American River Canyon would once again be under siege by a wildfire.

The canyon below the Edward's property was covered primarily by Manzanita, Ceanothus, and Scrub Oak. There were also pockets of oak and conifer stands in the drainages and scattered across the landscape. The brush was near critical levels based on live fuel moistures and due to its age had a very significant amount of dead materials mixed in with the live. The standing fuels averaged between six and eight feet in height but could be found up to fourteen feet tall in places. The mixed oak and conifer stands typically had a significant brush understory. These stands were even more volatile than the rest of the landscape due to the presence of "needle drape" throughout the understory. This added layer of fine fuels resulted in an increase in torching which also increased the potential for spotting.

The North Fork of the American River flows almost due North - South below the Edward's property. Because of this, the fuels receive direct sunlight through the first half of the day. The humidity and fuel moisture are significantly reduced on this slope by mid-day and the fuel temperature is dramatically increased. Mid-September is typified by hot, dry weather and continuous canyon winds. The standard S-SW winds combine with the daytime up-canyon winds to create very breezy conditions in the canyon and surrounding areas. Around mid-night the up canyon winds will give way to the colder air settling into the canyon causing strong down-canyon winds.

The topography of the American River Canyon has a very powerful effect on any fire that occurs with in it. The slope ranges from ten to two hundred percent with most of it in the 45 – 75 % range. This slope greatly increased the fire's spread by allowing the pre-heating of the fuels and keeping the flaming front in contact with a constant supply of unburned fuel. It also hampered fire-fighting efforts by limiting the access to the fire's edge, as there were very few roads in the area.

When Allen first began working his land he realized that he needed to consider the potential for a wildfire coming out of the canyon. One of his first efforts was to develop fuelbreak along the ridgeline of his property to help reduce the likelihood of a fire spreading to the remainder of his parcels. Along the ridge top, his property was primarily a second growth mixed conifer woodland. It was typified by uneven aged Ponderosa Pines, Black Oak, and a heavy brush component. Working with his sons, Allen took the time to thin the stands for up to 150' along the roadway. In doing this he removed the ladder fuels and provided an open stand from which fire fighters could make a stand against an encroaching wildfire. Prior to treatment one could have easily found 30 – 40 stems in a 15' – 15' area. After treatment that number was reduced

down to 3 – 6 stems in the same area. He also took the time to prune all remaining stems up at least eight above the ground. By doing these two things he was able to have a significant effect on the fire's behavior within the fuelbreak. At the time of the Ponderosa Fire Allen was working with the BLM in an effort to extend his fuelbreak through their land that is adjacent to his.

The Division Supervisor that was responsible for that portion of the fire, Ken Hughes, said," The fuelbreak was integral in our operations along Gillis Ridge. It gave us a place to safely fire from where we would not put our crews in danger. We were able to extend the fuelbreak along the ridge and tie in with the river to fully contain the head of the fire. Without the work he, (Allen Edwards) had done prior to this fire there is a very good likelihood that the fire would have ran up into the homes further to the west."

Even though this fuelbreak is not listed in the current Nevada – Yuba – Placer Fire Management Plan as a project, the Unit has looked at it a number of times and recommended it for funding through the Natural Resources Conservation Service (NRCS). They direct most of their funding to projects that have been determined through CDF's Fire Planning process to have a great potential for reducing government costs and citizen losses due to a wildfire.

It cost Allen Edwards and the NRCS about $4,500 total to treat about ten acres of land. That money proved to be a wise investment as the fuelbreak resulted in a fire perimeter that had very few homes and other structures within it. Without the fuelbreak it is very likely that the fire would have continued up into the south eastern edge of the city of Colfax.

FORTY - NINER PREFIRE PROJECT (Completed)

Due to the extensive movement of California's population from the urban areas to the more rural areas, the loss of structures to wildland fire is ever increasing. The Forty-Niner area is a prime example of a community in the rural-urban interface/intermix. Many of the homes were constructed prior to any type of regulations concerning fire safe issues being enforced. It is estimated that there are over 1,600 homes within the project area. Of those 1,600 homes approximately 95% do not meet the **minimum** requirements (based on Calif. Public Resources Code 4291) for fire safe clearance and access.

Recent ground surveys of the area estimate over thirteen tons of dry, dead fuels per acre. Much of this fuel is Greenleaf Manzanita or Ceanothus, both of which can result in extreme fire behavior and spotting. Due to the heavy fuels in the area, simply meeting the minimum requirements will not likely prevent structural damage during a period of severe fire behavior. This was evident in the recent Williams fire in which one-third of the homes destroyed met the minimum clearance requirements but were not prepared for a firestorm.

Large fires in the unit have caused approximately 48 million dollars worth of damages and destroyed over 270 homes since 1985. Nevada, Yuba, and Placer counties experience 800-900 fires per year in the area protected by CDF. On average, one to two percent of those escape the initial attack stage and result in an extended attack or major fire. Based on those numbers eight to nine fires per year have the potential to become costly and damaging fires. As long as California continues to experience the movement of the population from the urban areas into the rural areas, this problem will continue to worsen. However, through the implementation of the CDF State Fire Plan and the identification of high-risk areas, we will be able to reduce the damage to life, property, and the environment due to wildland fires.

Actions involved in the proposed project:
The Forty-Niner prefire project was designed to tie in with current prefire projects that have been implemented by the Nevada County Resource Conservation District, CDF, Bureau of Land Management, and the Natural Resource Conservation Service as a cooperative program. This project includes fuel break construction and roadside clearing to reduce fuel loads. There has been strong support and requests of these types of projects by the local community.

Event 1: Chipper support for homeowners. Home inspections will be conducted in the late spring and summer months. To date over 100 of the homes in this project area have been inspected. Residents who remove vegetation as a result of the inspections may need alternative ways to dispose of the material. Burn days will be limited due to air quality and fire hazard concerns. The proposed support for the homeowner is to hire a chipping contractor to provide chipping services to the residential landowners. This chipping will be coordinated to provide for the most cost efficient coverage possible. Once the homeowner clears the vegetation around their residence, they will notify the coordinator who will then schedule chipping services for them and any other nearby participants. The crew will then chip the vegetation and deposit the material back onto the property. This program has been ongoing for approx two years and over

200 landowners within the project area have utilized the chipping service so far. It has received a strong response from the community and is considered to be very successful.

Event 2: : A series a shaded fuel breaks along existing roads and public utility right-of-ways that are located in strategic areas to allow fire fighting resources access and a location to effectively suppress an encroaching wildfire. In addition, the location of these fuel breaks will facilitate a safer evacuation of residents in this access-limited area should a large fire occur. Using existing roads and right-of-ways for the locations of the shaded fuel breaks takes advantage of areas that are devoid of all vegetation. Modifying the fuels for a distance of 35 feet on both sides of the existing roads will give an effective shaded fuel break width of approximately 100 feet. The location of these shaded fuel breaks will allow ready access and a strategic defensive position for fire suppression resources and facilitate long term maintenance of the fuel breaks. It will require coordination with both the county and affected property owners, but has extensive community support. The use of a mechanical masticator to do the initial heavy work, followed up by handcrews, has proven to be the most cost effective way to accomplish the fuel breaks. The proposed fuels breaks would occupy approximately 180 acres.

Justification: This project will take approximately three years once on the ground work begins. It is estimated that over 180 acres and 400 residences will be treated by the project providing enhanced protection to over 20,000 acres of wildland-urban interface.

Potential Stakeholders to participate in Cost Sharing to Fund the Project:

- Nevada County
- FireSafe Council of Nevada County (FSCNC)
- Federal Emergency Management Agency (FEMA)
- Governor's Office of Emergency Services (OES)
- Local Service Groups
- Nevada County Resource Conservation District (NCRCD)
- Natural Resources Conservation Service (NRCS)
- Northern Sierra Air Quality District (NSAQMD)
- Forty-Niner Fire Protection District (49er FPD)

Estimated Cost of Proposed Project **Total = $826,350**

The work accomplished to date is the result of a FEMA Hazard Mitigation Grant. FEMA has thus far contributed over $481,000 to this program while CDF and others have contributed over $120,000 as part of the match share to the program.

CASCADE SHORES PREFIRE PROJECT (Completed)

The Cascade Shores prefire project was also designed to augment a current prefire project that has been implemented by the Nevada County Resource Conservation District through a CDF funded grant. This project includes fuel break construction and road side clearing to reduce fuel loads. CDF Conservation Crews assisted in this project. There has been strong support and requests of these types of projects by the local community.

Cascade Shores Prefire Project

Event 1: An inspection program of the Cascade Shores area to enforce the Public Resources Code 4291 Fire Safe standards (LE 38 Inspection). Nevada County Planning Department estimates that there are approximately 1,100 housing units in this area. To date over 200 of these residential properties have been inspected. Inspection of these housing units will serve two purposes:

1. Ensure compliance with PRC 4291. This will promote a fuel condition adjacent to structures where fire suppression resources will have a better chance of protecting homes should a wildfire occur.
2. Educate the homeowners of the state law requirements regarding defensible space standards and what they should do to help the chances of their house surviving a wildfire in the area.

The Nevada Yuba Placer Unit has found, in its Nevada County LE 38 Inspection program in 2000, that only about 5% of the residences required a second inspection to ensure compliance with PRC 4291. Approximately 1% of the residences required a third inspection.

Event 2: Second LE 38 inspection of approximately 55 housing units.

Event 3: Third LE 38 inspection of approximately 11 housing units.
*Includes General Services vehicle rental for inspectors.

Event 4: A series a shaded fuel breaks along existing roads and connecting old mining diggings that are located in strategic areas to allow fire fighting resources access and a location to effectively suppress an encroaching wildfire. In addition, the location of these fuel breaks will facilitate a safer evacuation of residents in this access limited area should a large fire occur. Using existing roads for the location of the shaded fuel breaks takes advantage of the area occupied by the road surface that is devoid of all vegetation. Modifying the fuels for a distance of 35 feet on both sides of the existing road will give an effective shaded fuel break width of approximately 100 feet. The location of these shaded fuel breaks will allow ready access and a strategic defensive position for fire suppression resources and facilitate long term maintenance of the fuel breaks.

Shaded Fuel Break Locations:

1. Pasquale Road west of Cascade Shores subdivision. Approximately 5 miles long.

2. Quaker Hill Cross Road . Approximately 4 miles long.

3. Along the old mining diggings to the south and east of Cascade Shores. Approximately 3 miles long.

The proposed fuels breaks would occupy approximately 145 acres.

Event 5: Homeowner support for removal of vegetation as a result of the LE 38 inspections. The inspections will most likely occur in the late spring and summer months. Residents who remove vegetation as a result of the inspections may need alternative ways to dispose of the material. Burn days will be limited due to air quality and fire hazard concerns. . The proposed support for the homeowner is to hire a chipping contractor to provide chipping services to the residential landowners. This chipping will be coordinated to provide for the most cost efficient coverage possible. Once the homeowner clears the vegetation around their residence, they will notify the coordinator who will then schedule chipping services for them and any other nearby participants. The crew will then chip the vegetation and deposit the material back onto the property. This program has been ongoing for approx two years and over 130 landowners within the project area have utilized the chipping service so far. It has received a strong response from the community and is considered to be very successful.

Potential Stakeholders to participate in Cost Sharing to Fund the Project:

- Nevada County
- Local Service Groups
- Nevada County Resource Conservation District
- Natural Resources Conservation Service
- Northern Sierra Air Quality District
- Forty-Niner Fire Protection District
- Cascade Shores Subdivision Homeowners Association

Estimated Cost of Proposed Project **Total = $252,924.43**

The work accomplished to date is the result of a FEMA Hazard Mitigation Grant. FEMA has thus far contributed over $143,000 to this program while CDF and others have contributed over $35,000 as part of the match share to the program.

23. Appendicies

1. Assets at Risk Ranking Methodology
2. Individual Assets at Risk maps
3. NYP Implementation Process
4. Excerpts from PRC 4290 & PRC 4291
5. Stakeholder Input Information
6. Auburn Recreation Area FirePlan
7. Nevada County Fire Mitigation Framework

A. CDF Fire Plan Assets at Risk.

Asset at Risk	Public Issue Category	Location and ranking methodology
Hydroelectric power	Public welfare	1) Watersheds that feed run of the river power plants, ranked based on plant capacity; 2) cells adjacent to reservoir based plants (Low rank); and 3) cells containing canals and flumes (High rank)
Fire-flood watersheds*	Public safety Public welfare	Watersheds with a history of problems or proper conditions for future problems (South Coastal Plain, field/stakeholder input), ranked based on affected downstream population
Soil erosion	Environment	Watersheds ranked based on erosion potential
Water storage	Public welfare	Watershed area up to 20 miles upstream from water storage facility, ranked based on water value and dead storage capacity of facility
Water supply	Public health	1) Watershed area up to 20 miles upstream from water supply facility (High rank); 2) grid cells containing domestic water diversions, ranked based on number of connections; and 3) cells containing ditches that contribute to the water supply system (High rank)
Scenic	Public welfare	Four mile viewshed around Scenic Highways and 1/4 mile viewshed around Wild and Scenic Rivers, ranked based on potential impacts to vegetation types (tree versus non-tree types)
Timber	Public welfare	Timberlands ranked based on potential damage by FIA region/owner
Range	Public welfare	Rangelands ranked based on potential replacement feed cost by region/owner/vegetation type
Air quality	Public health Environment Public welfare	Potential damages to health, materials, vegetation, and visibility; ranking based on vegetation type and air basin
Historic buildings	Public welfare	From State Office of Historic Preservation, ranked based on fire susceptibility
Recreation	Public welfare	Unique recreation areas or areas with potential damage to facilities, ranked based on fire susceptibility
Structures	Public safety Public welfare	Ranking based on housing density and fire susceptibility
Non-game wildlife	Environment Public welfare	Critical habitats and species locations based on input from California Department of Fish and Game and other stakeholders
Game wildlife	Public welfare Environment	Critical habitats and species locations based on input from California Department of Fish and Game and other stakeholders
Infrastructure	Public safety Public welfare	Infrastructure for delivery of emergency and other critical services (e.g. repeater sites, transmission lines)
Ecosystem Health	Environment	Ranking based vegetation type/fuel characteristics

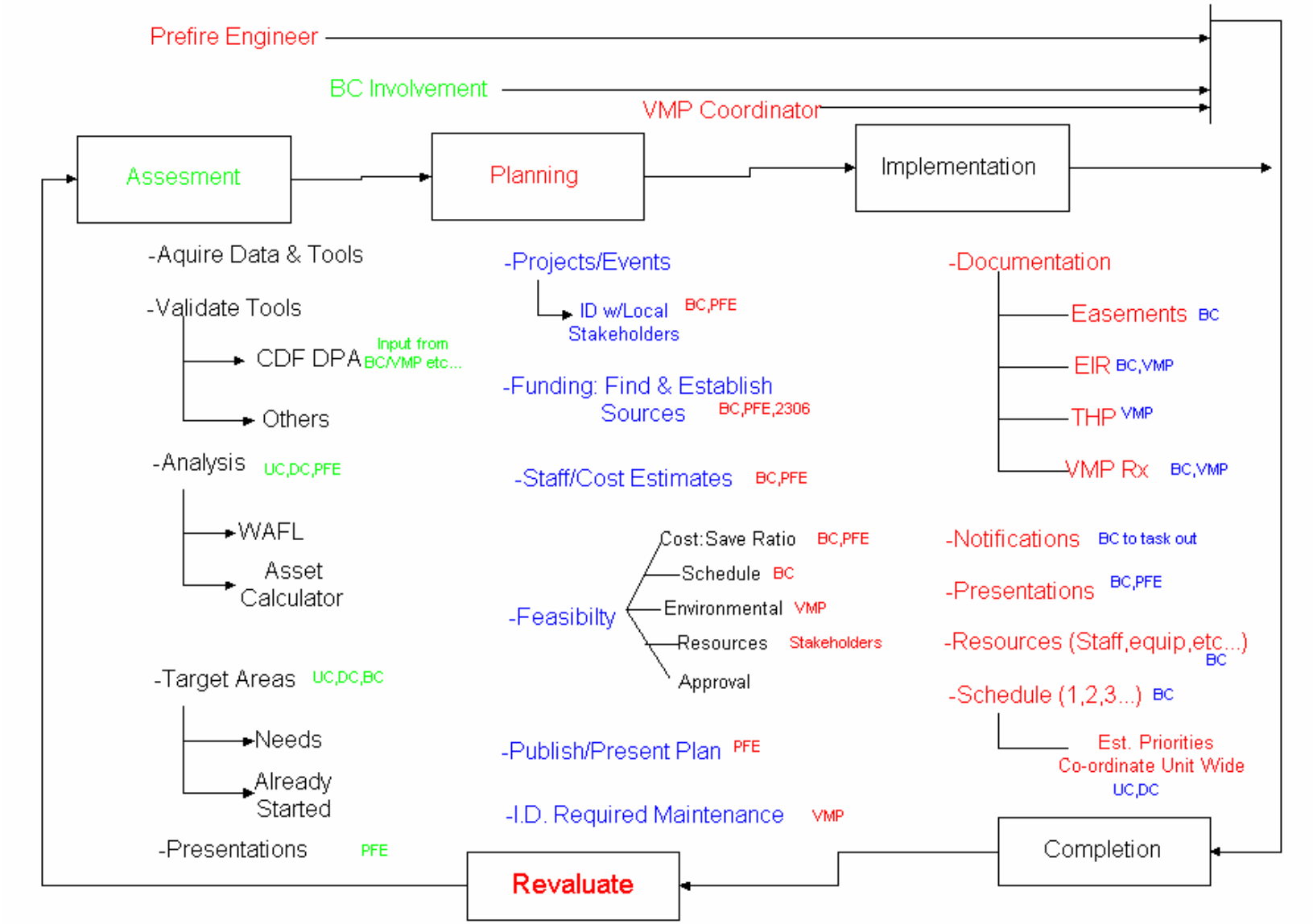
* Fire-Flood watershed asset data is currently for southern California and has not been included in this document.

B. The individual assets at risk maps follow. (Maps located at end of document)

21.1.1 Included are:

Hydroelectric Power
Soil Erosion
Water Storage
Water Supply
Scenic
Timber
Range
Air
Historic Buildings and Landmarks
Recreation
Housing
Wildlife: Represents both Game and Non-game Wildlife
Infrastructure
Fire-Flood Watershed
Ecosystem

NYP Prefire Management Plan Implementation Process



Standards for Hazardous Fuel Reduction for Nevada-Yuba-Placer Unit

Three fuel reduction prescriptions are described below. They include:

Defensible Space (PRC 4291): Area surrounding a structure where fire protection or firebreak is made by removing all brush, flammable vegetation, or combustible growth which is located up to 30 feet (up to 100 feet in heavy fuel areas) from such structure or to the property line, whichever is nearer. The goal is to create an area where ground based fire suppression resources, such as fire engines, can successfully defend the structure from an advancing fire.

Defensible Landscape: The area outside of the defensible space zone where additional fuel reduction is completed to enhance the protection value of the defensible space zone around a structure. Increased aesthetics and habitat values are planned for in this prescription.

Modified shaded fuel break: defined as a defensible location, where fuels have been modified, that can be used by fire suppression resources to suppress oncoming wildfires. Any fuel break by itself will NOT stop a wildfire. It is a location where the fuel has been modified to increase the probability of success for fire suppression activities. Ground resources can use the location for direct attack or firing out. Air resources can use the location for fire retardant drops. The public and fire resources can use the location for more efficient ingress and egress.

The three prescriptions are listed below. The defensible space and defensible landscape prescriptions incorporate the modified shaded fuel break prescription with a few variations. ***The only trees eligible to be removed under the following prescriptions are in the 10- inch diameter class (diameter of main stem at breast height) or smaller. All trees larger that the 10- inch diameter class will only be pruned to a height of 8 to 10 feet above the ground, not to reduce the live crown ratio of the plant to below 50%. Exceptions for defective trees and snags are noted below.***

I. Defensible Space Prescription: PRC 4291

Includes all of following:
1. Maintain around and adjacent to a building or structure a firebreak made by removing and clearing away, for a distance of not less than 30 feet on each side thereof or to the property line, whichever is nearer, all flammable vegetation or other combustible growth. This does not apply to single specimens of trees, ornamental shrubbery, or similar plants that are used as ground cover, if they do not form a means of rapidly transmitting fire from the native growth to any building or structure.

2. Remove that portion of any tree that extends within 10 feet of the outlet of any chimney or stovepipe.

3. Maintain any tree adjacent to or overhanging any building free of dead or dying wood.

4. Maintain the roof of any structure free of leaves, needles, or other dead vegetative growth.

5. Provide and maintain at all times a screen over the outlet of every chimney or stovepipe that is attached to any fireplace, stove, or other device that burns any solid or liquid fuel. The screen shall be constructed of nonflammable material with openings of not more than one-half inch in size.

6. Within 100 feet of existing structures all annual grasses are to be maintained to below 6 inches in height.

7. Except as noted in 1 above, the Modified Shaded Fuel Break prescription described below also applies.

II. Defensible Landscape Prescription:

Includes all of the following:

1. Oak trees with trunks within 3 feet of each other, essentially making one canopy, may be considered one tree in the defensible landscape areas. Prune branches off of all residual trees from 8 to 10 feet off the forest floor, not to reduce the live crown ratio below 1/2 of the height of the tree. ***Adjacent trees shall be removed to create horizontal distances between residual trees from 20 feet between trunks up to 8 to 15 feet between tree crown drip lines.***

2. One clump of trees per lot or acre, where tree trunks are within 20 feet of each other, may also be retained in the defensible landscape areas providing spread of fire to or from this feature is adequately mitigated. Mitigation measures for this feature include:

a. Prune branches off of all residual trees from 8 to 10 feet off the forest floor, not to reduce the live crown ratio below 1/2 of the height of the tree
b. Trees adjacent to this feature shall be removed to create horizontal distances ***between residual trees from 20 feet between trunks up to 8 to 15 feet between tree crown drip lines.*** No ground fuels shall exist within the drip line of the feature.

3. Except as noted in 1 and 2 above, the Modified Shaded Fuel Break prescription described listed below also applies.

III. Modified Shaded Fuel Break Prescription:

Implementation consists of removing or pruning trees, shrubs, brush, and other vegetative growth on the project area. For site protection, all work is encouraged to be completed by use of a masticator and/or hand crews supported by chippers and/or burning. Heavy equipment with blades is not recommended for use for fuel reduction work.

1. ***Understory Fuels***

Understory fuels over 1 foot in height are to be removed in order to develop vertical separation and low horizontal continuity of fuels. Individual plants or groups of plants up to 10 feet in canopy diameter may be retained provided there is a horizontal separation between plants of 3 to 5 times the height of the residual plants and the residual plants are not within the drip lines of an overstory tree.

For rare and endangered species concerns, elderberry trees shall not be removed or treated within the shaded fuel breaks in elevations below 3000 feet.

2. Mid-story Fuels

Only trees up to the 10-inch diameter class (at breast height (dbh)) may be removed. Exception to this size limit shall be trees that have significant defect and/or which do not have a minimum of a 16-foot saw log. Live but defective trees larger than the 10-inch diameter class providing cavities or obvious wildlife use will be retained.

Trees shall be removed to create horizontal distances between residual trees from 20 feet between trunks up to 8 to 15 feet between tree crown drip lines. Larger overstory trees (> 10 inches dbh) do count as residual trees and, in order to reduce ladder fuels, shall have vegetation within their drip lines removed. Prune branches off of all residual trees from 8 to 10 feet off the forest floor, not to reduce the live crown ratio below 1/2 of the height of the tree.

For rare and endangered species concerns, elderberry trees shall not be removed or treated within the shaded fuel breaks below the 3000 feet elevation level.

Criteria for residual trees (< 10 inch diameter class (dbh)):

Conifers:

Leave trees that have single leaders and thrifty crowns with at least 1/3 live crown ratio.

Conifer leave tree species in descending order:

- Ponderosa pine
- Sugar pine
- Douglas fir
- White fir
- Incense cedar

Intolerant to shade species have a higher preference as leave trees because their seed will be less likely to germinate in the understory.

Snags

Snags are a conduit for fire spread during a wildfire. However, they also provide excellent wildlife habitat in their natural state. The following is the criteria of when snags shall be retained:

18 inch diameter class or larger and not more than 30 feet in height which are not capable of reaching a road or structure provided there is a separation of least 100 feet between snags.

Hardwood trees:

Leave trees that have vertical leaders and thrifty crowns with at least 1/3 live crown ratio. Retain all elderberry trees.

Hardwood leave tree species in descending order:

- Big Leaf Maple- Riparian area, less common
- Blue Oak - least leaf surface area, less volatile when burning
- Black Oak - higher leaf surface area
- Madrone - more volatile when burning
- Live Oaks - most volatile when burning, branches closest to ground.

Brush:

It is desirable to remove as much brush as possible within the shaded fuel break area. However, if individual plants or pairs of plants are desired to be left, leave plants with the following characteristics: young plants less than 5 feet tall and individual or pairs of plants that are no more that 5 feet wide. Retain all elderberry trees.

Brush leave species in descending order:

- Toyon – Less Common
- Buckeye – Less Common
- Dogwood – less common
- Lemmon Ceanothus - less common, less volatile
- Buck brush (Wedge leaf ceanothus) - smaller brush plant, less volatile
- Redbud - less common
- Coffeeberry - less common
- Whitethorn - lower lying plant
- Deer brush - larger plant, high leaf surface area, more volatile when burning
- Manzanita - larger plant, high leaf surface area, more volatile when burning

Chamise - foliage contains highest amount of flammable oils, most volatile when burning

3. Wetlands:

Functional wetlands will be avoided for treatment and ground operations.

4. Watercourse and Lake Protection Zone (WLPZ):

To provide mitigation for riparian associated species and to reduce the potential risk of habitat fragmentation, the following will apply:

WLPZ widths shall be in conformance with Title 14, California Code of Regulations, 936.5, Procedures for Determining Watercourse and Lake Protection zone Widths.

916.5, 936.5, 956.5 Procedures for Determining Watercourse and Lake Protection Zone Widths and Protective Measures916.5, 936.5, 956.5 Procedures for Determining Watercourse and Lake Protection Zone Widths and Protective Measures916.5, 936.5, 956.5 Procedures for Determining Watercourse and Lake Protection Zone Widths and Protective Measures916.5, 936.5, 956.5 Procedures for Determining Watercourse and Lake Protection Zone Widths and Protective Measures916.5, 936.5, 956.5 Procedures for Determining Watercourse and Lake Protection Zone Widths and Protective Measures916.5, 936.5, 956.5 Procedures for Determining Watercourse and Lake Protection Zone Widths and Protective Measures916.5, 936.5, 956.5 Procedures for Determining Watercourse and Lake Protection Zone Widths and Protective Measures916.5, 936.5, 956.5 Procedures for Determining Watercourse and Lake Protection Zone Widths and Protective Measures916.5, 936.5, 956.5 Procedures for Determining Watercourse and Lake Protection Zone Widths and Protective Measures916.5, 936.5, 956.5 Procedures for Determining Watercourse and Lake Protection Zone Widths and Protective Measures916.5, 936.5, 956.5 Procedures for Determining Watercourse and Lake Protection Zone Widths and Protective Measures [All Districts]

Table 2

Procedures for Determining Watercourse and Lake Protection Zone Widths and Protective Measures[1]

Water Class Characteristics or Key Indicator Beneficial Use	1) Domestic supplies, including springs, on site and/or within 100 feet downstream of the operations area and/or 2) Fish always or seasonally present onsite, includes habitat to sustain fish migration and spawning.		1) Fish always or seasonally present offsite within 1000 feet downstream and/or 2) Aquatic habitat for nonfish aquatic species. 3) Excludes Class III waters that are tributary to Class I waters.		No aquatic life present, watercourse showing evidence of being capable of sediment transport to Class I and II waters under normal high water flow conditions after completion of timber operations.		Man-made watercourses, usually downstream, established domestic, agricultural, hydroelectric supply or other beneficial use.	
Water Class	Class I		Class II		Class III		Class IV	
Slope Class (%)	Width Feet	Protection Measure	Width Feet	Protection Measure	Width Feet	Protection Measure	Width Feet	Protection Measure
					[see 916.4(c)] [see 936.4(c)] [see 956.4(c)]		[see 916.4(c)] [see 936.4(c)] [see 956.4(c)]	
<30	75	BDG	50	BEI	See CFH		See CFI	
30-50	100	BDG	75	BEI	See CFH		See CFI	
>50	150[2]	ADG	100[3]	BEI	See CFH		See CFI	

1 - See Section 916.5(e) for letter designations application to this table.
2 – Subtract 50 feet width for cable yarding operations.
3 – Subtract 25 feet width for cable yarding operations.

Class I watercourse (Fish bearing):

Exclude from treatment and equipment operations (except on existing roads).

Class II watercourse (Aquatic habitat for nonfish aquatic species):
No treatment of overstory and the treatment of understory will not reduce vegetative cover below 50%. One thousand hour and smaller sized dead fuels ($\leq$ 5 inches in diameter) will be removed. Ground based equipment will not operate within the zone except on existing roads. Prune residual trees.

Class III watercourse (No aquatic life present):
Full shaded fuel break prescription will be implemented but no ground based equipment will operate within the zone except on existing roads.

Summary of AAR Adjustments in Response to Stakeholder Comments
Nevada-Yuba-Placer Ranger Unit
FRAP 7/26/96

Hydroelectric

Stakeholder	Comment	Action/Response
YCWA	There are 2 plants at Englebright Lake, and since their output is over 50 it should be ranked medium	They were added to the database from the DWR list. However, all reservoir based plants are treated as Low ranking, regardless of capacity
YCWA	Sedimentation of storage facilities can reduce power generation	The primary impact on power we considered was sedimentation affecting equipment. Since reservoirs help to settle out particles, reservoir based plants are all ranked low. If others in this stakeholder group also think that power reduction due to lowered storage capacity is significant, we may want to rethink how we rank reservoir based power plants.
PCWA	There are missing plants in Michigan Bluff and Foresthill quads	The DWR list has the Oxbow and Ralston plants in this area (both PCWA). PCWA provided lat-lon for these plants.
PCWA	Provided lat-lon coordinates for 5 plants	Used the data to generate new locations for these plants
NID	Provided erodibility estimates for some lakes/reservoirs	Changed ranking for Bowman and Spaulding reservoir based plants from Low to unranked due to low erodibility
NID	Provided a map showing plants and canals	Led to some minor adjustments in plant locations, major adjustment for Chicago Park Plant. Also was invaluable for locating additional canals. Assumed that the canals above NID were primarily for power, at or below NID are for water supply.

Fire-Flood

The input from stakeholders is difficult to use in its current form, since they identified streams, not watersheds. I suggest we start printing copies of the 3D large stakeholder map and add CALWATER planning watershed boundaries. We can provide these to stakeholders to identify actual watersheds.

Secondly, the rankings they are assigning are not consistent with the description of this AAR. The ranking should be based on downstream population that might be affected by the fire-flood

sequence (this is a public safety issue!). Stakeholders need to be given proper direction to distinguish this AAR from the soil erosion AAR, which is related exclusively to erodibility.

Some areas they identified in lower elevations certainly have a flooding problem, but fire probably has a minimal impact due to low erodibility and flat slopes. After further discussions between our hydrologist and the stakeholders, we eliminated all areas except the Bear River drainage, which is assigned a Low ranking.

Water Storage

Stakeholder	Comment	Action/Response
NID	Provided a map and a list of facilities with dead storage capacity and erodibility 1) a number of smaller facilities we missed were listed, but they all had low erodibility 2) Rollins was listed as having high capacity 3) Bowman, Jackson Meadows, and Lake Spaulding were identified as having low erodibility	1) these facilities would not be ranked so we did not add them in 2) changed ranking to Low 3) Changed to unranked
YCWA	Bullards is a critical source of ag water for Yuba County	Under our criteria this is still classified as a storage facility. Since they consider it to be high value, we could rank it High for storage under our criteria if it also has a low dead storage capacity. Based on their concerns, I changed the rank to High.
YCWA	Camptonville quad cells 27, 36, and 43 contribute to sedimentation which is a big problem here	Changed rank of these cells to High

Water Supply

Stakeholder	Comment	Action/Response
NID	Provided maps of ditch locations	Within the NID area, ditches on the map were captured and assigned as water supply features.
	Combie?	

Scenic

Stakeholder	Comment	Action/Response
?	Tahoe Basin should be ranked High - designated as a National Treasure by congress	Assigned a High ranking to Tahoe Basin
?	The American and Yuba rivers are designated scenic rivers	According to our information, the American is designated, and this has been added. However, the Yuba is designated as ✌study✍ and was not added
?	I80 and hwy49 are designated scenic	We have parts of them included
?	All areas over 5500' should be designated as scenic	Many of these areas are (e.g. Tahoe Basin). Ranking all these lands would diminish the relative importance of the areas that are currently ranked
?	Trails should be designated as scenic	Some of the more prominent trails may be ranked in the recreation AAR. Capturing and ranking all trails is probably not realistic.
?	Hwy89 and 267 in Tahoe should be included	Part of 89 is in the scenic loop. Also, part of 89 that starts at the county line but goes into El dorado county is designated scenic - its viewshed does extend into NEU.

Air

Concerns were raised over the studies used as the basis for the methodology. While the absolute dollar values can be questioned, the real issue is whether relative rankings between air basins/veg types are correct. Since no stakeholder provided meaningful comments to suggest changes, the initial rankings were retained.

Recreation

Based on stakeholder input, the Western States Trail was added as a recreation feature.

Non-game Wildlife

We were never able to get participation from the local Fish and Game biologist, i.e. the data were never validated. Kevin Schaefer suggested that we just use the initial rankings.

Also, the Forest Service did not agree with the representation of their lands. In the future, we need to work closer with them to take advantage of the expertise they have related to USFS lands.

Infrastructure

Since this was added relatively late in the NEU process, it was never validated.

Soil Erosion

We attempted to construct rankings based on stakeholder input, but it was never received. Late in the NEU process we implemented a methodology for ranking cells for soil erosion, but this was not validated.

Auburn State Recreational Area

June 2003

Fire Management Plan

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INTRODUCTION

The United States Bureau of Reclamation is responsible for the management of the Auburn Dam and Reservoir Project lands, a project originally authorized by Congress in 1965. The total acreage within the project boundary is 42,000 acres. Of this, Reclamation has ownership for approximately 26,000 acres. The remaining acreage is owned by BLM, the United States Forest Service, and private parties. California State Parks and Recreation (CSP) and California Department of Forestry and Fire Protection (CDF) have management authority over all Project lands through cooperative agreements with Reclamation. The total lands are known as the Auburn State Recreation Area (ASRA) and are operated by the State of California as a state recreation area.

The California Department of Forestry and Fire Protection has provided fire prevention and suppression services at the Auburn Dam and Reservoir project lands since 1979. Elements identified in the contract as a part of fire prevention and suppression services involve: 1) plan for fire suppression, 2) patrol the designated areas, 3) operate heavy equipment to construct and maintain fire roads, breaks and to reduce fire fuel, and 4) improve wildlife habitat.

This document will guide the activities of CDF personnel and act as a plan to accomplish fire prevention and pre suppression activities in the Auburn State Recreation Area.

STRATEGY

The strategy involved with identifying fire prevention activities in the ASRA is similar to that of developing a battalion fire prevention plan. The process begins by evaluating historic and potential ignition locations and causes. Identifying the assets at risk from wildfire within and immediately adjacent to Reclamation lands. Evaluating fire history, and evaluating fuels hazards throughout. An additional component involves an assessment from Department of Parks and Recreation resource ecologists to identify ecosystem conditions and what prescribed fire's role would effect.

After combining and evaluating the factors listed, prefire management activities or a prescription will be established in order to mitigate the identified threats, hazards of wildfire ignition, and protect assets at risk from wildfire.

An approach using, "target areas" may be used to assist with focussing efforts, however, as of the time of this document creation, it is not necessary.

VISION STATEMENT

It is important to describe the, "Ideal Condition" of the Reclamation lands receiving fire prevention service. This statement provides the "light at the end of the tunnel", and is the condition which to focus activities towards.

A setting where accomplished fire prevention activities mitigate wildfire ignition and wildfire effect involves: 1) Fuel breaks adjacent to resource and property assets threatened by fire on Reclamation lands, 2) maintained fire roads with safety zones in strategic locations, 3) handline constructed around day use areas/picnic areas throughout the ASRA, 4) maintenance of established fuel breaks 5) fire prevention signage at all use areas throughout the fire season, 6) coordinated forest and fire law enforcement and patrol in all areas of ASRA, 7) establishment of industrial operations guide for industrial operators on Reclamation lands, with enforcement of the regulations within the guide and, 8) continued aggressive fire suppression of wildfires within the ASRA under CDF's operating procedures.

GOAL

To protect life and both public and private resources by reducing the risk and hazard of wildland fire within the Auburn State Recreation Area by implementing management strategies that promote the preservation and restoration of natural resources and protection of cultural resources.

FIRE PLAN ASSESSMENTS

Fire plan assessments influence the prioritization and selection of fire prevention activities. These factors are the proof or statistics supporting prioritization. Not all projects are prioritized based on the assessments, other influences guide projects as well, such as: Politics, past practice, cost and ethics.

Fire Ignition History and Potentials

The leading number of ignitions in the ASRA are categorized as "miscellaneous" causes. Statistically, this information is not of much assistance to the planner, however, the following is. Arson is the second highest cause. Many fires are unidentified, which can be translated to either arson or vehicle caused fires. See Ignitions Map and Cause maps for distribution by cause.

VEHICLES
There are several thoroughfares within the ASRA, Hwy 49, Forest Hill Rd, Yankee Jims Rd, Ponderosa Way, and Auburn Foresthill Rd. These roads provide the highest potential from which, fires may start. The fire ignitions originate from vehicle exhaust, vehicle fires, and arson.

Other vehicle fire potential stems from the recreational vehicle use at Mammoth Bar and traffic leading to it. It is imperative that recreational vehicle exhaust systems be checked for compliance and limited to designate areas. Additionally, it must be mentioned, there has not been a recorded fire starting from a recreational vehicle within the Mammoth Bar OHV area. This displays the effectiveness of managed recreational use and adequate engineering to prevent fires from the OHV area.

POWERLINES
Another potential ignition source exists from power line system within the ASRA. 3% of fires in the ASRA has been a result of powerline caused fires, however, these fires contribute a high percentage of acres, relatively, to the overall acres burned over the last twenty years. The ASRA contains both transmission and distribution lines, which must be inspected annually.

RECREATIONAL
Wherever there are human activities, the potential for fire exists. The ASRA provides recreation opportunities, which enable people to venture into the wildland by vehicle, foot, and other non-conventional means. Although, there is not a high quantity of fires starting from people hiking, fishing, bike riding, horse back riding and rafting, uneducated people burning toilet paper, sparks from horseshoes striking rocks, and illegal warming fires create the potential for fire ignitions. Fires started by these sources may be difficult to access by firefighting personnel, thus the fires get to extended attack and major status. The Ignitions Spot Map displays the pattern of fire causes and their relative location. It is obvious that many fires originate around the "confluence" and the Forest Hill Bridge. These areas will receive, as they have in the past, high fire prevention attention.

It is important to note that since 1990 there have been approximately 100 fires in the ASRA, while the ASRA has received extremely high visitation. The ASRA received 287,891 visitors in fiscal year 1994-1995 and has steadily increased to 987,971 visitors in fiscal year 2000-2001. The ratio of fire starts to visitors is very low. Much of this success is related to managed recreational use and steady fire prevention efforts. (See Ignition Spot Map).

ASSETS AT RISK

Assets at risk in the ASRA involve natural resources and private properties in the form of residential structures and the lives of the people living in them. Structures located within the ASRA and whose residential properties adjoin the property with Reclamation lands are threatened by fire originating from the ASRA. On the other hand, natural resources are threatened by fires originating from those same structures. These interface lands create a significant management issue and will be addressed later in this document (see Housing Density Map). Reduction and quick control of unwanted fires protects these assets.

The location of highest structural risk involves the structures on the canyon rim in the City of Auburn and unincorporated areas down canyon and up canyon of the City. These residential properties share boundaries with the Reclamation lands and thus are directly influenced by wildfire originating on Reclamation lands.

The location of second highest priority involves the interface at the community of Cool in El Dorado County. This community has a moderate housing density and is also an exposure to wildfire burning out of the ASRA and into the community as does the threat from fire burning into the ASRA from the community. There is a process of further developing and maintaining a fuel break on the canyon rim adjacent to Cool primarily being performed by the CDF battalion chief in Amador –El Dorado Unit who has the Cool are in his/her battalion.

21.1.2 WILDFIRE HISTORY

Unfortunately, the fire history map in this document includes fires over 300 acres in size, however, the ignition spot map may be used to identify fire frequency. The benefit of the fire history map relates to the frequency of large damaging wildfires in the ASRA. Another aspect of the map reveals where fire has not occurred, which identifies the build up of fire fuels, which identifies the potential for large damaging fires. Another aspect of the map reveals the dependence that fire suppression resources put on stopping fires at the ridge tops. This information is useful while interpreting future and existing fuels management projects to other agencies and citizens.

21.1.3 FUEL HAZARD

The Fuel Hazard map displays fuel hazard status to the nearest 450 acres. Although, this map does not reflect fuels management activities, it can display the current status over the general area and show what the vegetation potential is. The last fires to burn in the ASRA having significant vegetation impacts were in the 1960s, yet the fuels status are high and very high. If correlated with the fire history map, the amount of fire fuels build up from a lack of fire is also evident.

21.1.4 WILDLIFE HABITAT

The most effective method of restoring the ecosystem to its original state is to reintroduce fire into the ecosystem. This creates edge, diversity, and reestablished native plant and animal species. The additional benefit is a reduced fuel load assisting fire suppression forces during wildfire events.
Identify on map. State Parks resource ecologists have been consulted to provide information regarding potential projects involving prescribed fire and any favorable locations to burn. Although, a response to my request for input for relating to potential controlled burn locations has not been received, coordination efforts will me continued with CSP resource ecologists.

LAW ENFORCEMENT

There will be a continuous effort to enforce the Public Resources Code in the ASRA for both planned activities and patrol. Additional laws will be enforced as encountered by the Captain Specialist, such as Penal and Fish & Game Codes. Federal codes may be enforced in the ASRA as the lands are federal.

The Fire Captain Specialist will perform routine patrol of day use areas and popular visitation areas throughout the park. This will be accomplished through aircraft, vehicle, off road vehicle and foot access. Close coordination will occur with State Parks Personnel during many contacts with violators and law enforcement operations.

As per the Industrial Fire Prevention Guide established by the Captain Specialist, all commercial, recreational and industrial projects will be reviewed for fire prevention standards. Inspections of industrial and recreational equipment will be conducted and documented. Red tags will be used to put equipment out of service, if necessary.

Recreational vehicles are subject to inspection, and will be a target of inspection. The Mammoth Bar OHV area is a managed OHV area that receives much attention form state park rangers. Coordination for vehicle inspection is necessary, as to not duplicate efforts and to maintain efficient law enforcement.

Private lands within the ASRA are subject to PRC regulations. Enforcement of the PRC will be a priority on those private lands within the boundaries of the ASRA. The goal is to reduce fire threats to the ASRA wildland.

ENGINEERING

Fire prevention engineering is the most influencing factor relating to protecting assets at risk from wildfire. Engineering involves the creation of fuel breaks, fire breaks, fire road construction, and other fuels management activities. *CDF's primary prefire engineering fuel break strategy involves two objectives: Protect assets at the canyon rims, and inhibit fire from spreading up and down the river canyons.* There is an existing system of fuel break throughout the ASRA (see Fuel Break Map), which are designed behind this philosophy. They are listed below. Both shaded and unshaded fuel breaks are evaluated for condition and need on an annual basis. The establishment of new fuel breaks is also an evolving process, which is paced by resource availability and future maintenance capabilities. There are two wildland-urban interface shaded fuel breaks proposed in the ASRA. The Auburn Shaded Fuel Break is proposed to stretch along the canyon rim adjacent to the City of Auburn, and the Auburn Lake Trails Fuel Break is proposed to rest along the canyon rim and adjacent to the community of Auburn Lake Trails. Work on the Auburn Fuel Break is scheduled to start in May of 2002 while the Auburn Lake Trails Fuel Break is proposed to begin in 2003.

Fire roads are also an integral part of prefire engineering. The fire road system in the ASRA is intended to provide access for fire suppression crews to areas difficult to access. Additionally, the fire road system provides, to a lesser extent, fire break benefits when applicable. The fire roads are incorporated into wildfire preplanning and tactics while fighting wildfire. Fire roads within the ASRA are maintained by CDF, and are evaluated annually. The fire roads within the ASRA are listed below. (See Fire Road Map for correspondence)

Prescribed burning is another tool used as a prefire engineering mechanism, which modifies fuels into a less hazardous loading and provides wildlife habitat conditions favorable to early stage succession. With the exception of the, "Bridge Burn" controlled burn planning is evolving. In terms of strategic planning for prescribed burns, effort will focus on wildlife habitat improvement, exotic weed control and fire fuels reduction. With the evolution of this document, future editions will identify the strategic use of controlled burning.

FUEL BREAKS IN THE ASRA (Does not include trails)

NAME	LOCATION	NUMBER
Long Point Fuel Break	Upper end of Lake Clem, South of river	1
Drivers Flat	Drivers Flat road area south of Long Point	2
Brushy Mtn	Along Brushy creek down to Middle Fork	3
Mammoth Bar	Connects Forest Hill Rd & Mammoth Bar	4
Auburn Shaded Fuel Break	Along canyon rim/ Auburn City	5
Auburn Lake Trails Fuel Break	Along canyon rim/ Auburn Lake Trails	6

FIRE ROADS

NAME	LOCATION	NUMBER
Stage Coach	Under Forest Hill Bridge	1
Drivers Flat	Drivers Flat to river canyon	2
McKeon- Ponderosa	Middle fork to Ponderosa Rd	3
Lake Clementine Access	Lower Lake Clem Rd to middle of Lake	4
Knickerbocker Flat	Olmstead Loop trail, Cool	5
Long Point South	Foresthill Rd to Mid Fork Am River	6
Long Point North	Foresthill Rd to N. Fork Am River	7
Western States	Hwy 49 under Robie Point	8

INFORMATION/EDUCATION

Information and education is a necessary tool to the prevention of fire within the ASRA. CDF will be proactive in attempts to reach visitors to the ASRA. The primary method of information will come form sign posting. Non traditional sign locations will be identified and posted. The public contact made by the Fire Captain Specialist will be a major educational component, and when necessary, media releases will be made through radio and newspapers.

YEAR 2003

FIRE PREVENTION PLAN

There are three elements of wildfire fire prevention: Law Enforcement, Engineering-Planning, and Information-Education. This plan will categorize activities within these three elements.

21.1.5 LAW ENFORCEMENT

PATROL

Law enforcement patrols will occur throughout the ASRA, although, high priority areas will receive more frequent patrol, all areas of the park will be patrolled. High priority patrol areas include: **River confluence, Lake Clementin (upper and lower), down river of confluence, and Mammoth Bar.** These areas receive the majority of visitation during the summer and have a history of fires.

Priority
H__X__
M____
L_____

There will be coordinated patrol efforts between state park rangers and CDF (P2323). Often the need arises for h in contacts or high-risk contacts, where back up and more officers are necessary to make contact with violators. these situations arise without notice, the mutual aid efforts are developed as needed.

Priority
H__X__
M____
L_____

There is intent to have 4th of July patrols throughout the recreation area, with the high use/priority areas receiving the majority of attention. Law enforcement operation will involve surveillance and high visibility patrols. This effort will be coordinated with other law enforcement agencies.

INSPECTIONS / CODE ENFORCEMENT

There will be a meeting between PG&E and CDF to identify distribution and transmission lines throughout the ASRA. These lines will be inspected for PRC 4292 and 4293 compliance. All lines on private lands within the ASRA will also be subject to inspection. Violations will be documented and handled throughout the fire prevent bureau's notification or citation process.

Priority
H__X__
M____
L_____

There will be inspections of all commercial, industrial and recreational projects within the ASRA for PRC compliance and compliance with the requirements identified in the Fire Prevention Requirements for Industrial, Commercial, and Recreational guide for the ASRA. Equipment will be inspected on all such operations. (Refer t Guide for additional information).

Priority
H__X__
M____
L_____

All structures on private lands within the ASRA will be inspected in accordance with PRC 4291 as will the code be enforced on such properties.

Priority
H__X__
M____
L_____

A non-law enforcement inspection will be conducted of all activities within the ASRA to determine if fire prevention has been addressed as a condition of implementation. For example, to identify any potential fire risk as a result of river rafting events in the river canyons. There are BBQ fires allowed in areas along the river resulting from rive rafting, this issue has always been allowed without regulation or recommendation.

Priority
H__X__
M____
L_____

A policy and procedure will be drafted involving campfire restrictions during high fire hazard days within the AS Implementation will occur 2003, in conjunction with State Parks.

Priority
H__X__
M____
L_____

21.1.6 ENGINEERING / PLANNING

Priority
H__X__
M____
L_____

Implement CDF's Fire Prevention Plan for Industrial, Commercial and Recreational Operations for the Auburn State Recreation Area.

rity
H__X__
M____
L_____

Update the CDF Fire Prevention Plan for the Auburn State Recreation Area for 2003 and complete a year end re of activities for 2003.

FUEL BREAKS

Priority
H__X__
M____
L_____

Continue implementation of the Auburn Shaded Fuel Break. The fuel break is half complete. It will be necessary contract with the RCD for them to hire a project manager on CDF's behalf in order to continue to have a project manager to work on the project.

Priority
H__X__
M____
L_____

Begin herbasidal maintenance treatments of the Auburn Shaded Fuel Break. Along with the areas around the State Park Headquarters and the BOR building on Maidu Rd.

Priority
H__X__
M____
L_____

Implementation of the Auburn Lake Trails Shaded Fuel Break has started February 1, 2003. Continue fuel break operations throughout 2003, in conjunction with AEU CDF.

Priority
H__X__
M___
L_____

There will be general fuels reduction work accomplished in all campgrounds in attempts to reduce spotting pc of any fire that does occur within a campground.

Priority
H__X__
M___
L_____

FIRE ROADS

The following fire access roads will be graded this year:

Priority
H____ M__X__L_____

Stage Coach — Hwy 49 to Robie point

Priority
H____ M__ __L__X___

Long Point — Drivers Flat to river canyon

Priority
H____ M__X__L_____

McKeon- Ponderosa — Middle fork to Ponderosa Rd

Priority
H__X__ M____L_____

Lake Clementine Access — Lower Lake Clem Rd to middle of Lake

Priority
H__X__ M____L_____

Knickerbocker Flat — Olmstead Loop trail, Cool

HAND LINE CONSTRUCTION

There are locations in the ASRA that allow BBQ fires and or campfires.
Handline fire breaks will be constructed around each area where fire is permitted, if necessary. Theses include:

GROUND FIRES ALLOWED	BBQS ALLOWED
Iowa Hill Campground	Yankee Jims Parking
Drivers Flat Campground	Ponderosa Way Parking area
Kelleher Campground	Upper Lake Clem Day Use area
Lake Clementine Boating Access Camps	
Cherokee Bar Campground	

Priority
H__X__
M____
L_____

Handlines will be constructed along both sides of the North Fork of the American River at the Foresthill Bridge. This will be accomplished in June 2003.

Priority

PRESCRIBED FIRE

Currently, there aren't any plans to perform prescribed burning. The tow possibilities involve understory b between control lines around the Forest Hill Bridge.

ity
_
_
L___X__

There might be some understory burning conducted on the Auburn Shaded Fuel Break for maintenance purposes.

Priority
H____
M____
L___X__

21.1.7 INFORMATION / EDUCATION

Ensure fire prevention signing is posted throughout ASRA and that signs are in good condition. Make repairs or replace as needed.

Priority
H____
__
L_____

Recommendations For Wildfire Mitigation Measures in Nevada County

A plan to reduce total government costs and citizen losses from wildfire

DRAFT

GOAL: 1REDUCE FIRE SEVERITY AND INTENSITY THROUGH FUELS MANAGEMENT
Objectives

A. Improve public awareness and understanding that Nevada County lies within a fire-adapted ecosystem that historically relied upon fire to maintain the vegetative fuel accumulations. With fire no longer being an option for fuel management in communities, landowners need to take appropriate steps to mimic the natural processes of the past. We need to stress that there is a direct relationship between high fuel accumulations and high intensity, destructive wildland fire.

1. **Recommendation:** The FPC recommends that the CDF, USFS, BLM and the Nevada County Superintendent of Schools, and other interested groups, work together to develop a school curriculum based upon the historic nature of the Sierran Forests and the role of cyclical historic fire as nature's way of maintaining vegetative fuels accumulations.

2. **Recommendation**: The FPC recommends that the USFS and Nevada County Superintendent of Schools implement the concept of a School Forest within the Tahoe National Forest to provide students a laboratory in which to study and understand the dynamics of the Sierra Nevada forest.

3. **Recommendation:** The FPC recommends that the NRCS, CDF and Resource Conservation District jointly conduct seminars for landowners on proper stewardship techniques based upon fuel management prescriptions developed for this Plan.

4. **Recommendation**: Create a Video Lending Library of videos focused on proper land stewardship, proper defensible space, fire prevention, disaster preparedness and application of the various fuel management prescriptions.

B. Define the desired future fuel condition based upon the fuel conditions of the past.

B.1. Develop prescription for defensible space fuel modification around structures.

5. **Recommendation:** The FPC recommends that the Board of Supervisors adopt the following Fuel Management prescription (found in Appendix) as the foundation of an expanded ordinance for providing defensible space around structures.

B.2. Develop prescription for defensible community-level fuel modifications on the wildland portion of all parcels up to 10 acres.

6. **Recommendation:** The FPC recommends that the Board of Supervisors adopt the following fuel management prescription as the foundation for a new ordinance for wildland fuels management on improved and vacant parcels in and adjacent to communities of ten acres or less.

B.3. Develop a fuels management implementation strategy phasing in over 5 years, initially focusing on education and assistance. Ultimate implementation through education, assistance and enforcement.

7. Recommendation: The FPC recommends that the Board of Supervisors adopt as a fire risk reduction policy the following implementation timeline for education, assistance and compliance programs for fuels management ordinances recommended for adoption by this Plan.

Year 1 Public Education
Assistance Program
Enforcement of Defensible Space

Year 2 Public Education
Assistance Program
Enforcement of Defensible Space
Point of Sale enforcement for developed and undeveloped parcels
Enforcement at Building Permit Issuance

Year 3 Public Education
Assistance Program
Enforcement of Defensible Space
Point of Sale enforcement for developed and undeveloped parcels
Enforcement at Building Permit Issuance
General enforcement emphasized in High Hazard Severity Zones

Year 4 Continuation of year three

Year 5 Public Education
Assistance Program
Enforcement of Defensible Space
Point of Sale enforcement for developed and undeveloped parcels
Enforcement at Building Permit Issuance
General enforcement emphasized in High Hazard Severity Zones
General enforcement of landscape level fuel management on parcels 10 acres or less in all hazard areas

Subsequent Years
Continuation of Year 5

B.4. Provide fuel management consulting service contacts for private property owners of parcels greater than 10 acres in size.

8. Recommendation: The FPC recommends that resource agencies (CDF, Natural Resource Conservation Service, Resource Conservation District, USFS, BLM) jointly develop guides for fuel management on large parcels. These guides must

take into account variations based upon fuel types, differing land management objectives and proximity to communities.

9. **Recommendation:** The FPC recommends that the Resource agencies provide training to fuels management contractors on the guides for fuel management on large parcels, and after successful completion of training, placed on a published hiring list.

10. **Recommendation:** The FPC recommends that the Resource agencies prepare and make available to the public a directory of Agency Advisors, Private Consultants and Fuels Management Companies to assist landowners in being proper stewards of their lands.

C. Develop, organize and fund, property owner assistance program.

11. **Recommendation:** In recognition of the relationship between fuel reduction and public safety, the FPC recommends that the Board of Supervisors seek a permanent funding mechanism for the provision of chipper services or alternative services at a reduced rate and free fuels management advising services to the landowners of Nevada County. Funding for this program may be entirely or partially offset through grants, but the program is of such value that it should not be grant dependent.

12. **Recommendation:** Provide consulting services for private landowners for the restoration and rehabilitation of wildlands impacted by fire, insect, and disease.

13. **Recommendation:** Create Directory of Assistance of Programs for large landowners i.e. Vegetation Management Program, California Forest Improvement Program, Environmental Quality Incentives Program.

14. **Recommendation:** Provide financial aid for community based fuel reduction to those landowners who can demonstrate financial need based upon established criteria and who are incapable of accomplishing the fuels management on their own.

GOAL: 2 ENHANCE PUBLIC SAFETY AND IMPROVE EFFECTIVENESS OF MERGENCY SERVICES THROUGH INFRASTRUCTURE IMPROVEMENTS
Objectives

A. Review and make recommendations regarding roads within the county for emergency ingress and egress.

A.1. Identify existing County maintained roads not meeting design standards for current or anticipated use as indicated by the General Plan.

15. **Recommendation:** The Board of Supervisors direct the Department of Transportation, in cooperation with the County Office of Emergency Services, law enforcement and the fire services to identify county maintained roads not meeting design standards for current or anticipated ADT, and that those roads be prioritized for upgrading as funds become available.

A.2. Ensure that private roads that are required as a condition of approval through the Subdivision Map Act are maintained to the design standard that they were originally required to be built to.

16. **Recommendation:** The FPC recommends that a compliance program be put in place to ensure that private roads required as a condition of approval are maintained, over the long term, to the same standard that they were originally approved.

A.3. Review private roads that have offers for dedication placed upon them and develop mechanisms for taking those of significant regional importance to public safety into the county maintained mileage program.

17. **Recommendation:** The FPC recommends that the DOT in cooperation with County OES, law enforcement and the fire services, conduct an analysis of private roads with offers of dedication on them and identify those of significant regional importance for safe ingress and egress. Once identified, those roads need to be prioritized for inclusion into the county maintained mileage program.

18. **Recommendation:** The FPC recognizes the current funding issues related to adding new roads to the maintained mileage program and recommends that mechanisms be explored by which to fund bringing roads of regional importance under county maintenance.

B. Develop a countywide rural fire protection water system that provides a cost effective, adequate water supply and seek adoption into county ordinance.

19. **Recommendation**: The FPC recommends that the Board of Supervisors, through the County Fire Marshal's Office, conduct a study for funding a countywide system of strategically located rural fire protection water storage tanks. It is further recommended that this study be funded with Title III funds. (Grant Funds to the County from the USFS under HR 2389) With the successful implementation of this

program the FPC recommends the abandonment of the application of individual water storage tank requirements on single-family residences.

20. Recommendation: Include inspection of required existing water storage facilities when inspecting for fuels management

B. Develop an emergency public notification system and educate citizens and agencies on intent and use.

21. Recommendation: The FPC recommends that the Board of Supervisors direct the County OES to put in place an automated emergency public notification system which uses the phone system to distribute information to user identified zones. These zones can be identified and the message can be spontaneously constructed in response to each incident. Given that this system is not wildland fire specific, but has application on all types of incidents, the committee feels that it is appropriate to purchase this system with Office of Homeland Security Grant funds. Once in place, the committee recommends that training on its application be given to all managers within public safety.

D. Create a business environment that encourages the development of a sustainable fuels management industry that assists landowners in their fuels management efforts safely, economically and in a manner consistent with the adopted fuels management prescriptions.

22. Recommendation: The FPC recommends that the resource agencies in Nevada County jointly sponsor workshops for fuel reduction contractors that covers safe operations, the application of the fuel management prescriptions to various fuel types, and fire prevention in their operations. Those contractors attending the workshop would be placed on a resource list and made available to the public.

GOAL: 3 REDUCE RISK TO LIFE AND PROPERTY THROUGH NEW OR REVISED CODES, ORDINANCES AND COMPLIANCE PROGRAMS

Objectives:

A. Review and revise, as needed, existing wildland fire related codes and ordinances to address the recognized hazards of building and living in the wildland urban interface.

23. Recommendation: The FPC established a separate sub committee be established to review the existing Fire Safety Regulations in the Land Use and Development Code (LUDC), Chapters 16 and 17.

Note: This committee, made up of fire prevention officers, members of the Building, Planning and Transportation Department, and members of various interest groups within the county, met over a period of three months and prepared suggested changes to the Fire Safety Regulations. Their recommendations have been reviewed and approved by the full Fire Plan Committee. Those changes are displayed in Appendix XX.

24. Recommendation: The FPC recommends that the Board of Supervisors consider the recommended changes of Code Review Sub-Committee and move to adopt those changes into the LUDC Chapter 16 & 17.

25. Recommendation: The FPC recognizes the continuing constraints that are being placed upon outdoor burning. The Committee recommends that green waste pickup, mulching or composting be the preferred alternative for leaf and pine needle disposal. Outdoor burning should be reserved as a priority for disposal of wildland fuels where no other options are feasible.

26. **Recommendation:** Provide green waste pickup services county wide or in rural areas schedule community vegetative waste drop off days in those areas not receiving green waste pickup.

B. Consider new fire safety Codes and Ordinances to meet the county's fire safe needs.

27. Recommendation: The FPC recommends that the Board of Supervisors adopt an expanded defensible space ordinance and a community level defensible landscape ordinance in accordance with the recommended fuels management prescriptions developed under Goal #1 and to be implemented consistent with the implementation strategy found in Goal #1

28. Recommendation: The FPC recommends that the Board of Supervisors direct that a review of the fire safety provisions of specific ordinances be conducted a maximum of five years after the implementation of the fuels management ordinances. The intent of the review is to evaluate whether or not significant fuels reduction has occurred that would allow reconsideration of prior regulations of restrictions based upon the risk being reduced in an area previously recognized as having significant wildland fire risk.

C. Review and recommend improvement of "same practical effect" process for meeting the intent of the Fire Safety Regulations.

29. Recommendation: The FPC recognizes the value of the 'same practical effect' or 'exception' process for use when the letter of the law may not be practically applied, but the intent of the law may be achieved through application of other measures and suggests that this provision in the code be retained. However, the FPC suggests that the public be better informed on how to enter and use the process.

GOAL: 4 INCREASE COMMUNITY AWARENESS AND INVOLVEMENT TO PROMOTE PARTICIPATION AND VOLUNTARY COMPLIANCE

Objectives:

A. Utilize the Fire Safe Council and community and business associations, i.e. Nevada County Board of Realtors, within Nevada County for public education and assistance.

30. Recommendation: The FPC recognizes the value of the Fire Safe Council as significant contributor of providing fire safe education and information to the residents of the County and supports efforts to seek sustainable, long term funding in order to maintain their programs.

B. Develop a template for a community/neighborhood fire safe plan.

31. Recommendation: The Fire Plan Committee has developed a Template for a Community Fire Safe Plan. It is the FPCs intent that this template be used by the various fire protection agencies within the county, in cooperation with the Fire Safe Council, to create community specific fire safe plans. These plans will address evacuation planning, specific high hazard project areas, neighborhood preparedness, safety zones and public education at the local level. It is the intent of the FPC that the community plan in tandem with the county plan will meet the requirement of the Disaster Management Act of 2000. The FPC seeks the support of the Board of Supervisors in this effort.

C. Provide on-site consulting for landowners.

32. **Recommendation:** The FPC recommends that the fire services, resource agencies, and the Fire Safe Council jointly publish a resource directory of public agency advisors, consulting services and private contractors available to the public for education, designing, or completing fuels management projects on private lands.

D. Create incentives that encourage Voluntary Compliance

33. Recommendation: The FPC recommends that the Fire Marshal's Office continue to work with the insurance industry to obtain recognition of the fact that the landscape level fuel reduction ordinance, once in effect, will significantly reduce

losses from wildland fire paid by insurers in Nevada County. And, that the reduction in risk should translate into lower premium costs to policyholders.

34. Recommendation: The FPC recommends that all agencies and organizations support the Fire Safe Council's effort to create a biomass reutilization center. It is hoped that this effort will result in a monetary value being placed upon removed vegetative fuels that will, at least in part, pay for their removal.

35. Recommendation: The FPC recommends that the Board of Supervisors, in cooperation with the fire services and the Fire Safe Council, publicly recognize individual landowners and communities and public land managers for significant accomplishments in fuels management at the individual parcel level, the community level, and at the landscape level.

E. Identify fuel reduction priorities for grant funded projects and public education.

36. Recommendation: The FPC recommends that the fire services and the Fire Safe Council, based on information taken from the Community Fire Plans and the CDF's Nevada-Yuba-Placer Fire Management Plan, identify those areas within the county with significant potential for large and damaging wildfires and prioritize those for grant funded fire risk reduction projects.

F. Provide a better understanding to the public and to the architectural and building industry about the benefits and material/design options available with ignition resistant building materials.

37. Recommendation: The FPC recommends that the fire agencies, the building industry and the building material industry cooperate on a high visibility educational effort on the benefits of using ignition resistant building materials and methods in the wildlands of Nevada County, And that this effort emphasize the architectural and appearance similarities between ignition resistant building materials and more readily combustible building materials.

GOAL: 5

INVOLVE FIRE AGENCIES, COUNTY DEPARTMENTS, AND PUBLIC AND PRIVATE LAND MANAGERS, AND THE FIRE SAFE COUNCIL IN COLLABORATING ON COUNTY-WIDE GOALS AND PLANS TO CONSISTENTLY AND EFFECIENTLY IMPLEMENT MITIGATION MEASURES

Objectives:

A. Provide adequate resources to implement Fuels Modification Ordinance, Rural Fire Protection Water Supply System and County Chipper Assistance Program and other programs appropriate for countywide application.

> **38. Recommendation:** The FPC recommends that the Board of Supervisors seek a source of funding for the appropriate staffing of the County Fire Marshal's Office to implement many of the recommendations of this Fire Plan that are most efficiently and effectively provided on a county wide basis. Those programs include the phased in implementation of the of the fuels management ordinances, the management of the county wide Rural Fire Protection Water Supply System, management of tax funded assistance programs for landowners, providing leadership in producing resource documents for the public and providing training to the fuels management industry.

C. Create a collaborative process for integration of common goals, countywide, into each agency's fire prevention program.

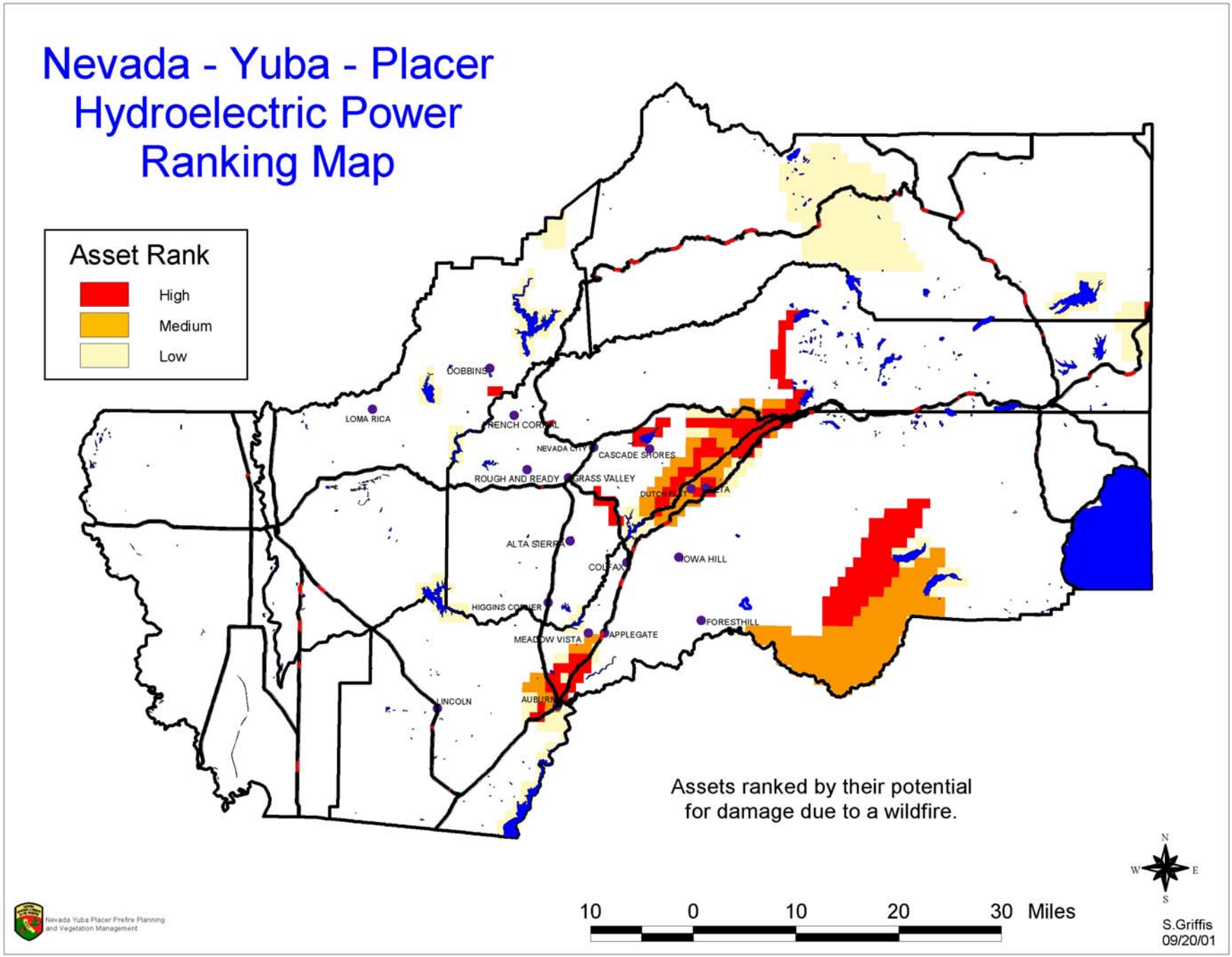
> **39. Recommendation**: The FPC recommends that the County Fire Marshal take a lead role in bringing together all agencies, non-profits, county departments and associations which have a statutory or general interest in fire risk reduction or protection of the environment from wildland fire with the intent of creating and maintaining a consistent message to the public regarding fire prevention and risk reduction requirements and activities.

D. Public and private Lands – Collaborate with public land managers, open space districts, land trusts for wildland urban interface fuel management.

> **40. Recommendation:** The FPC recommends that the County Fire Marshal, in cooperation with the local fire agency, work with public land managers, which manage wildlands within and adjacent to communities and who may not have a statutory requirement for compliance with the County's Fire Safety Regulations. The focus of the effort is to see that the vegetative fuels on these lands are managed in a manner similar to that being proposed for private lands in this plan.

E. Review the effectiveness of the fire plan in a minimum of five years and each five years thereafter.

> 41. **Recommendation**: The Fire Plan Committee recommends that the County Fire Marshal report, in May of each year, to the Board of Supervisors on the progress being made towards full implementation of the Fire Plan. And, that every five years the Board of Supervisors reconvene the Fire Plan Committee for a comprehensive review of the effectiveness of the fire plan.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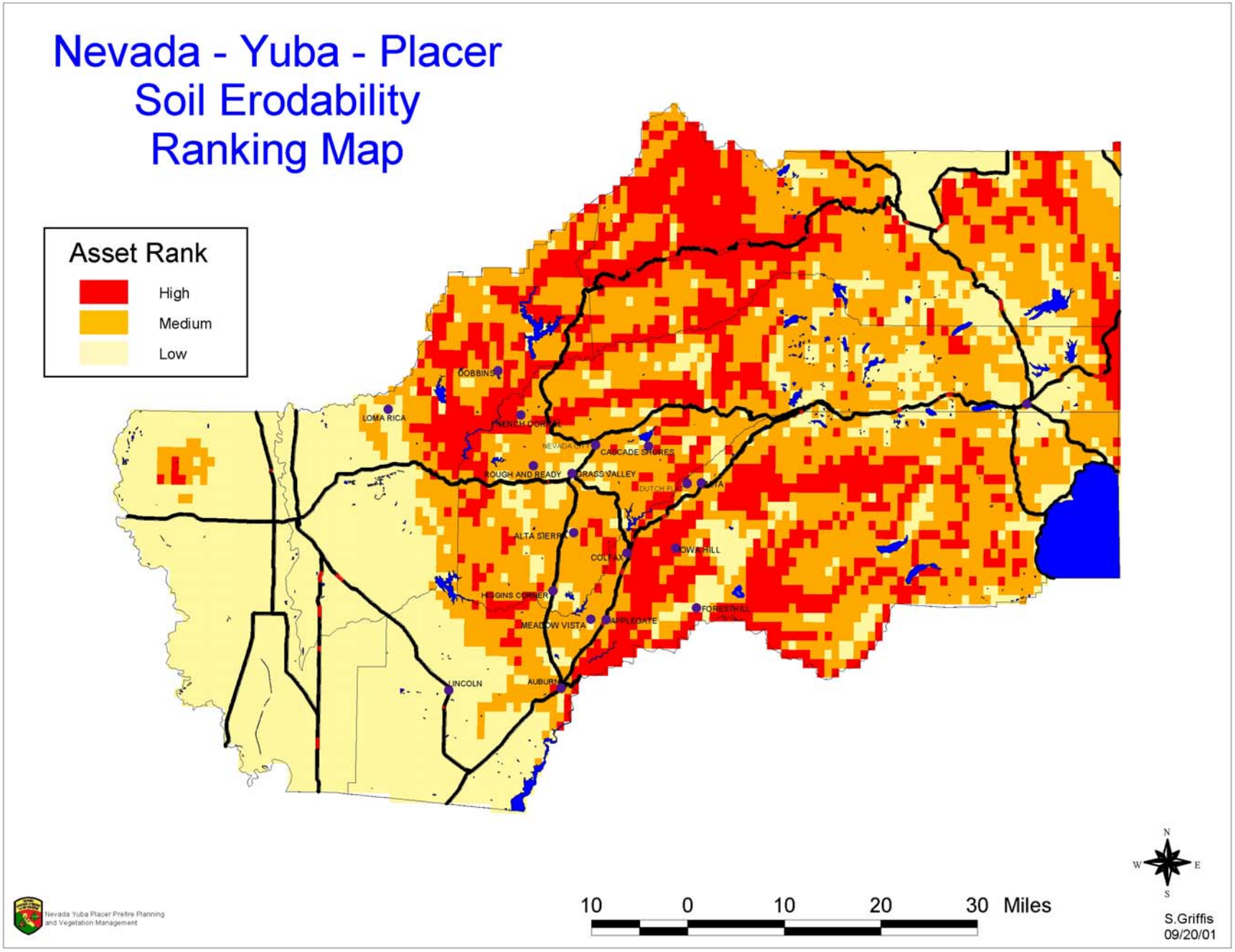
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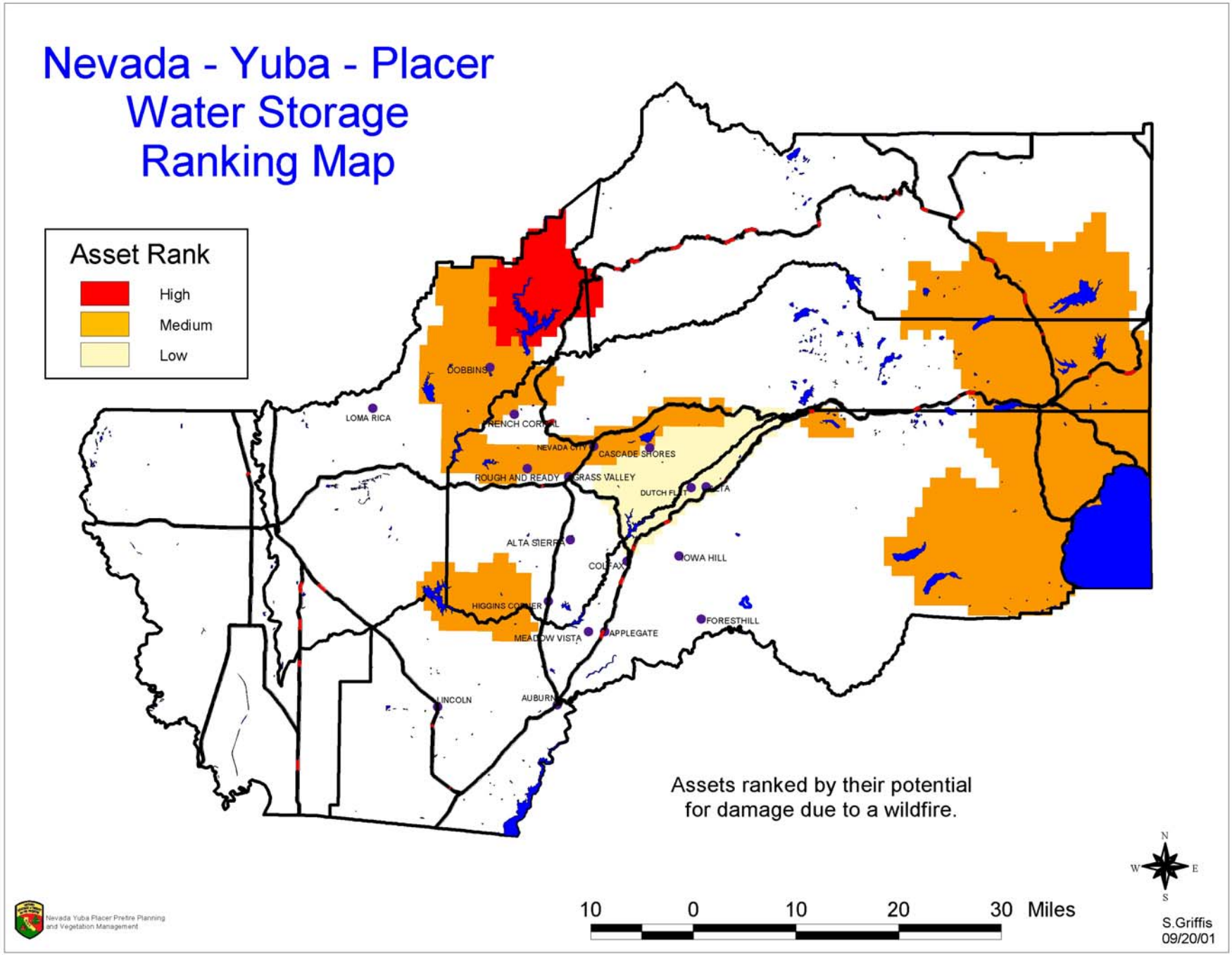
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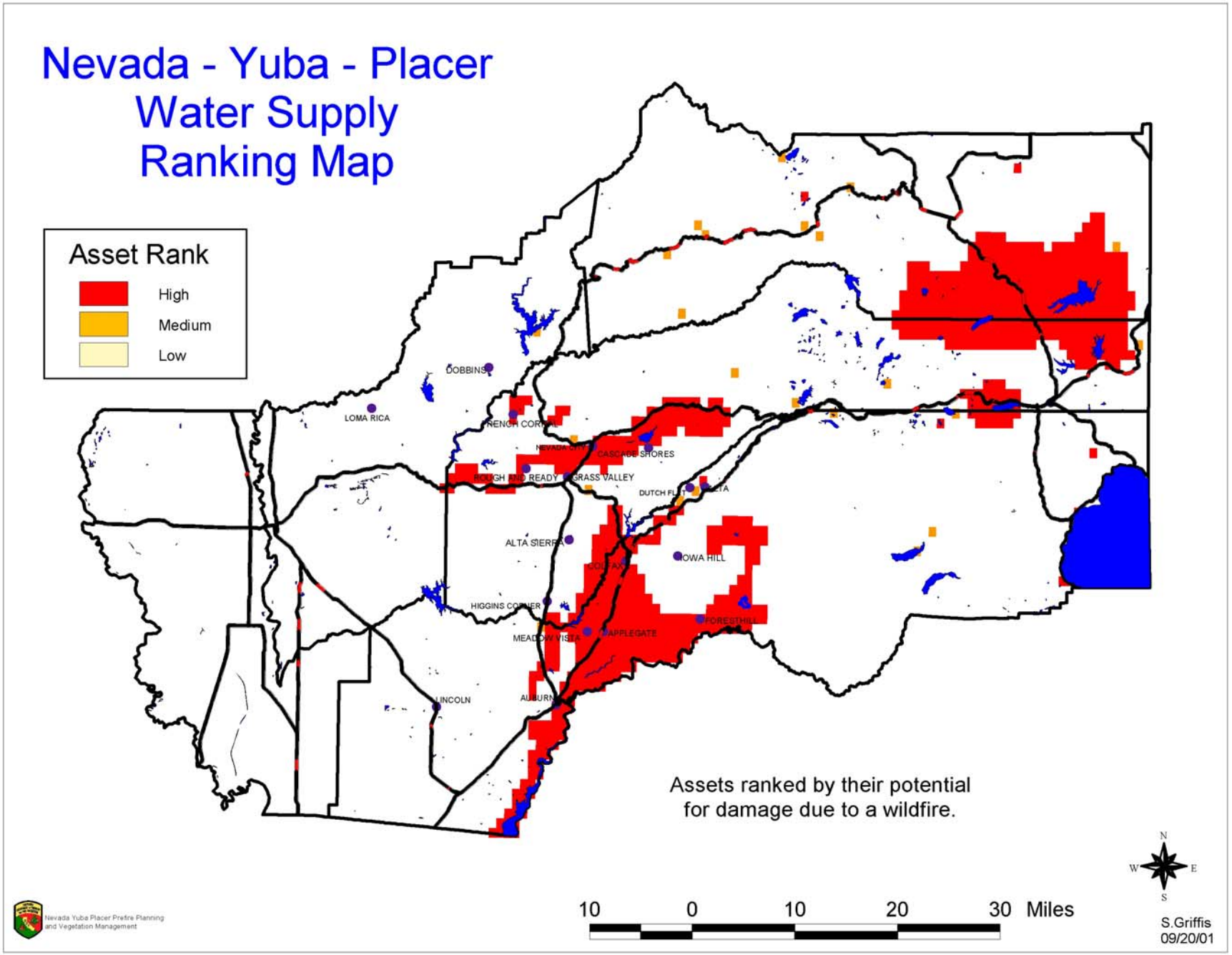
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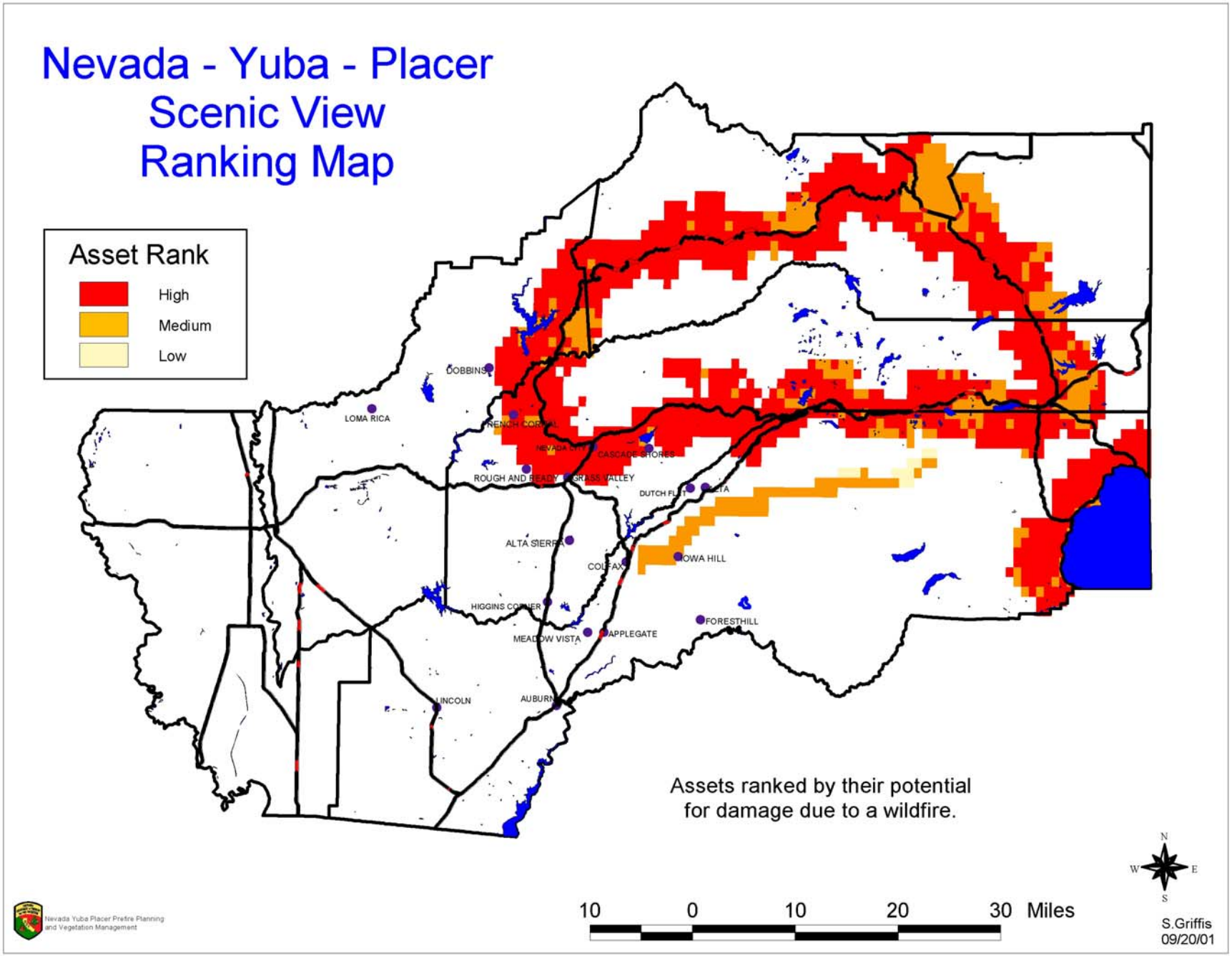
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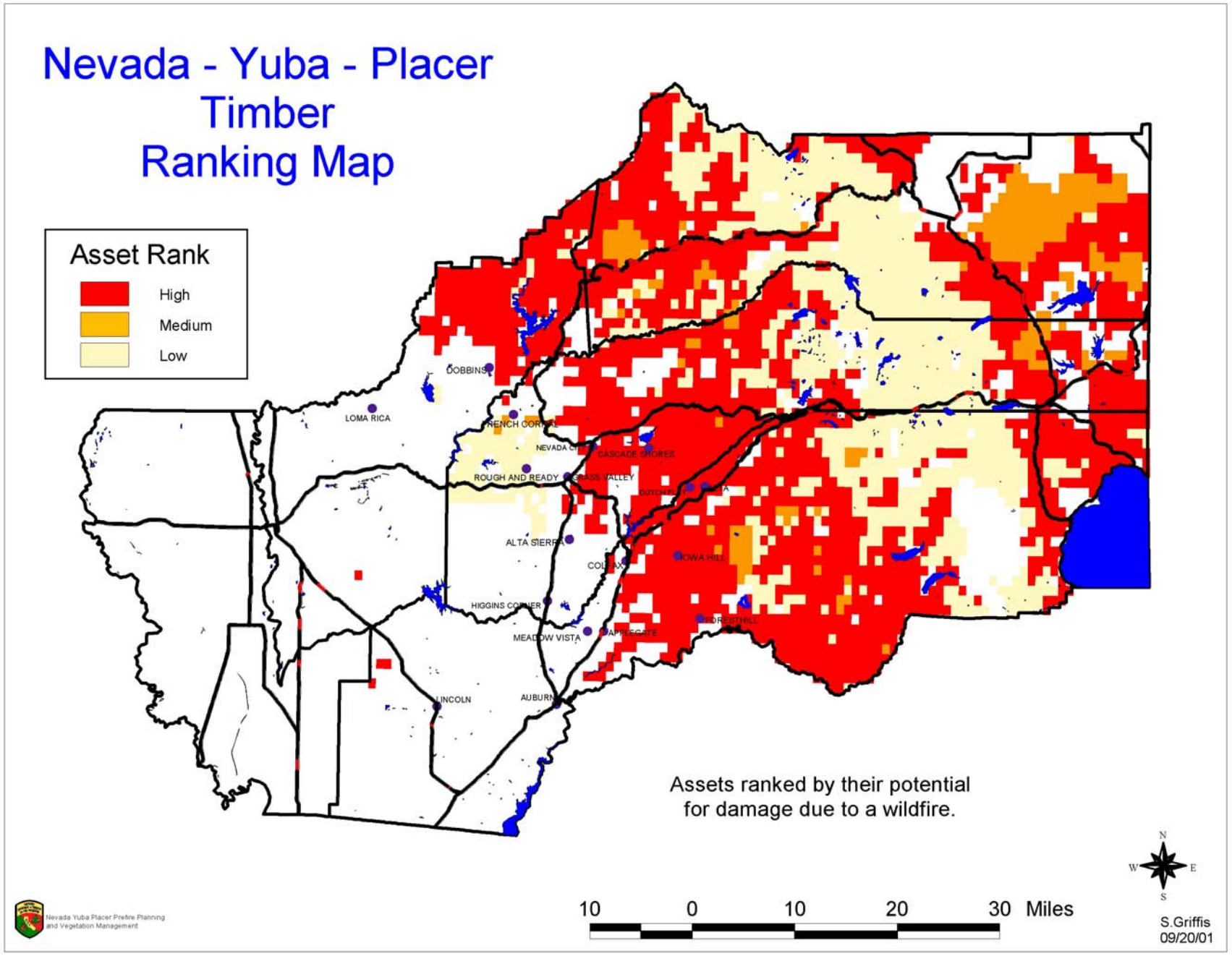
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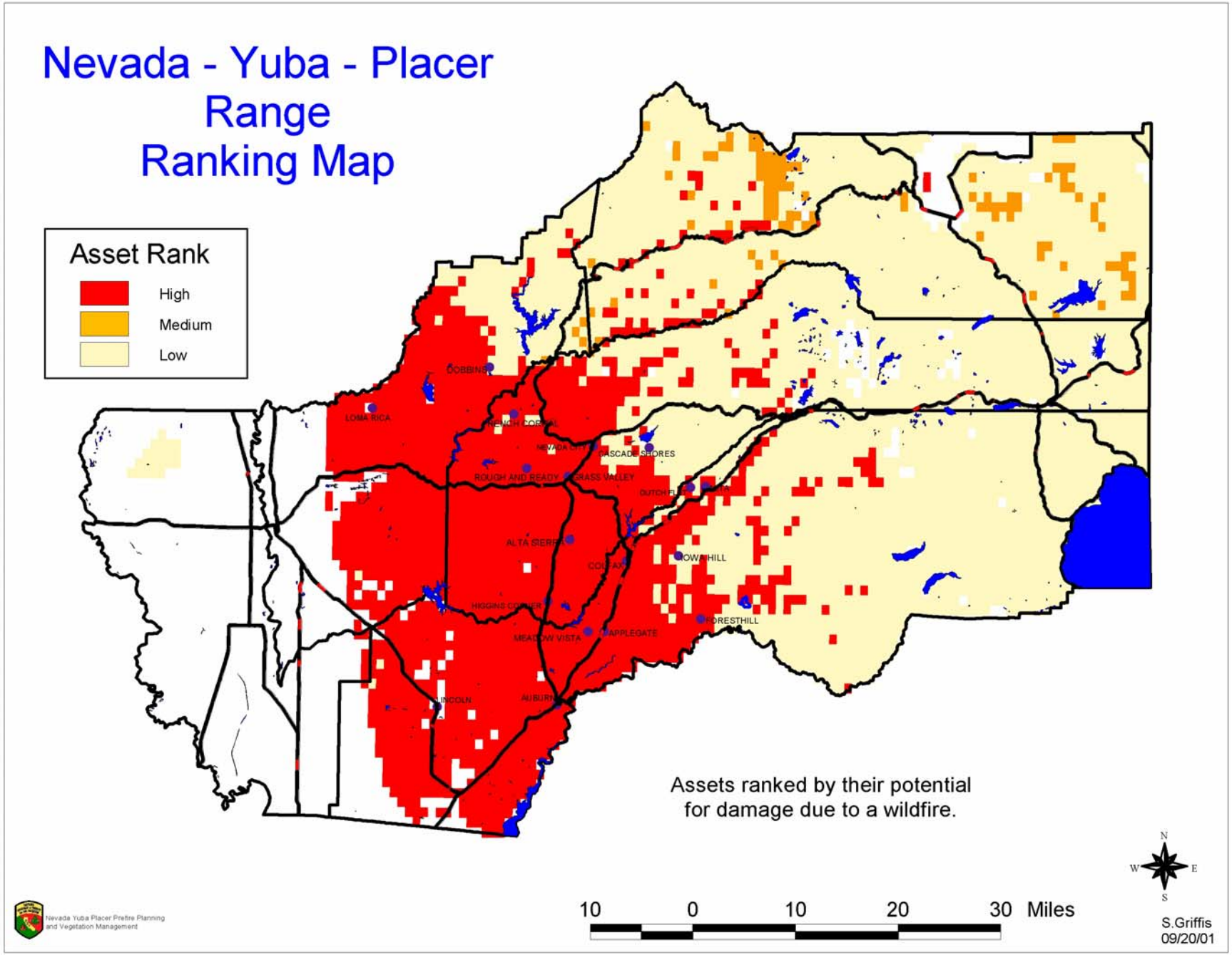
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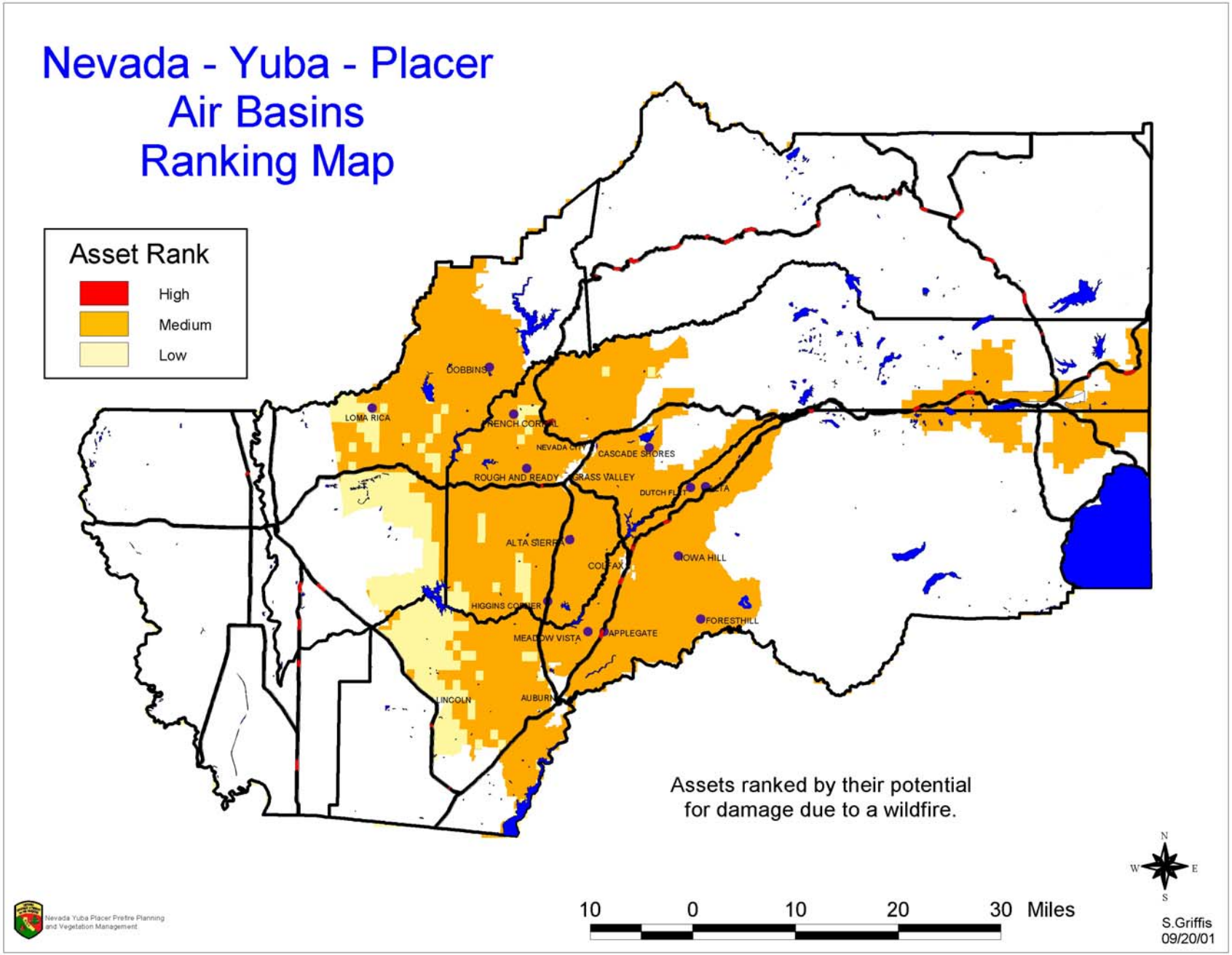
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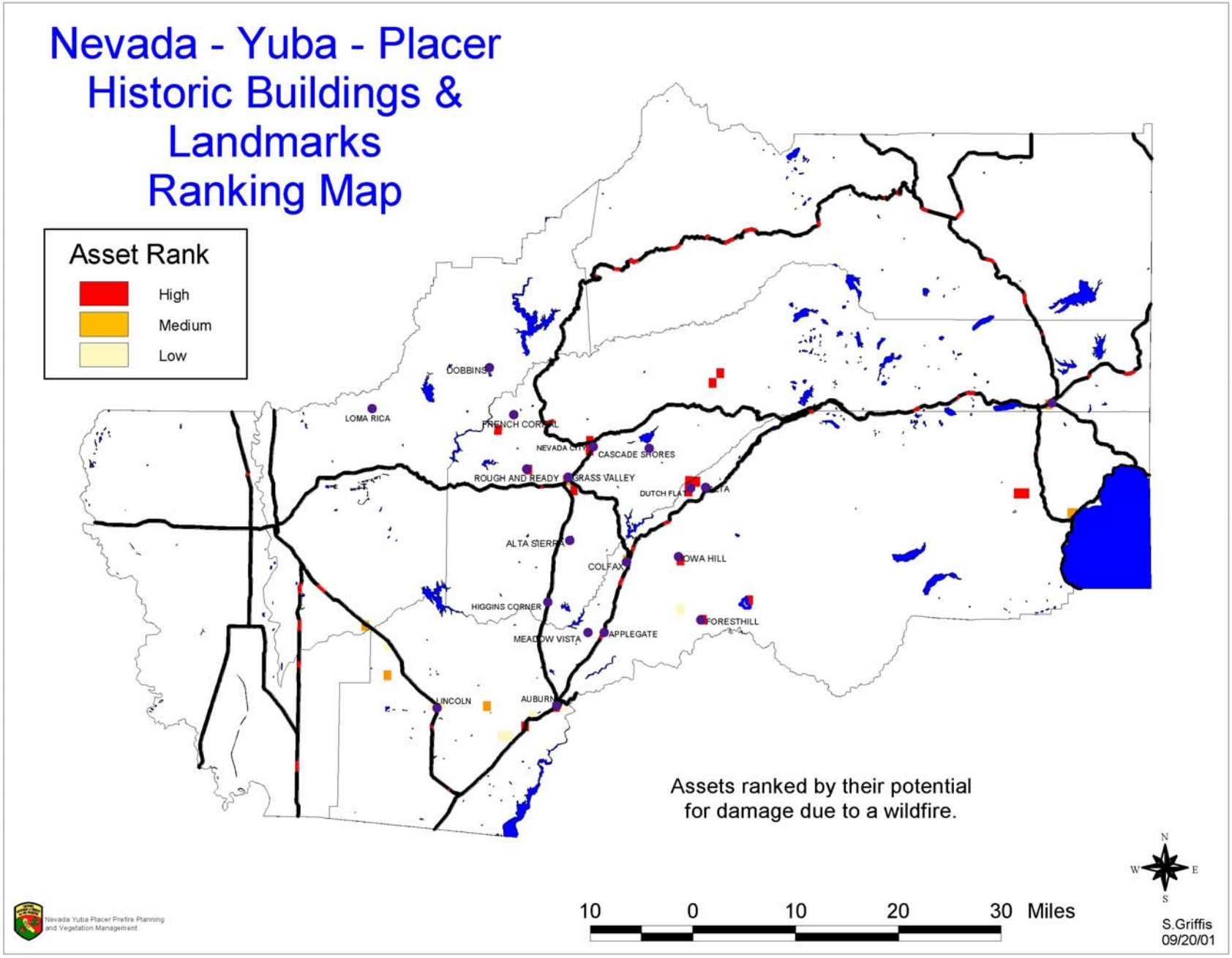
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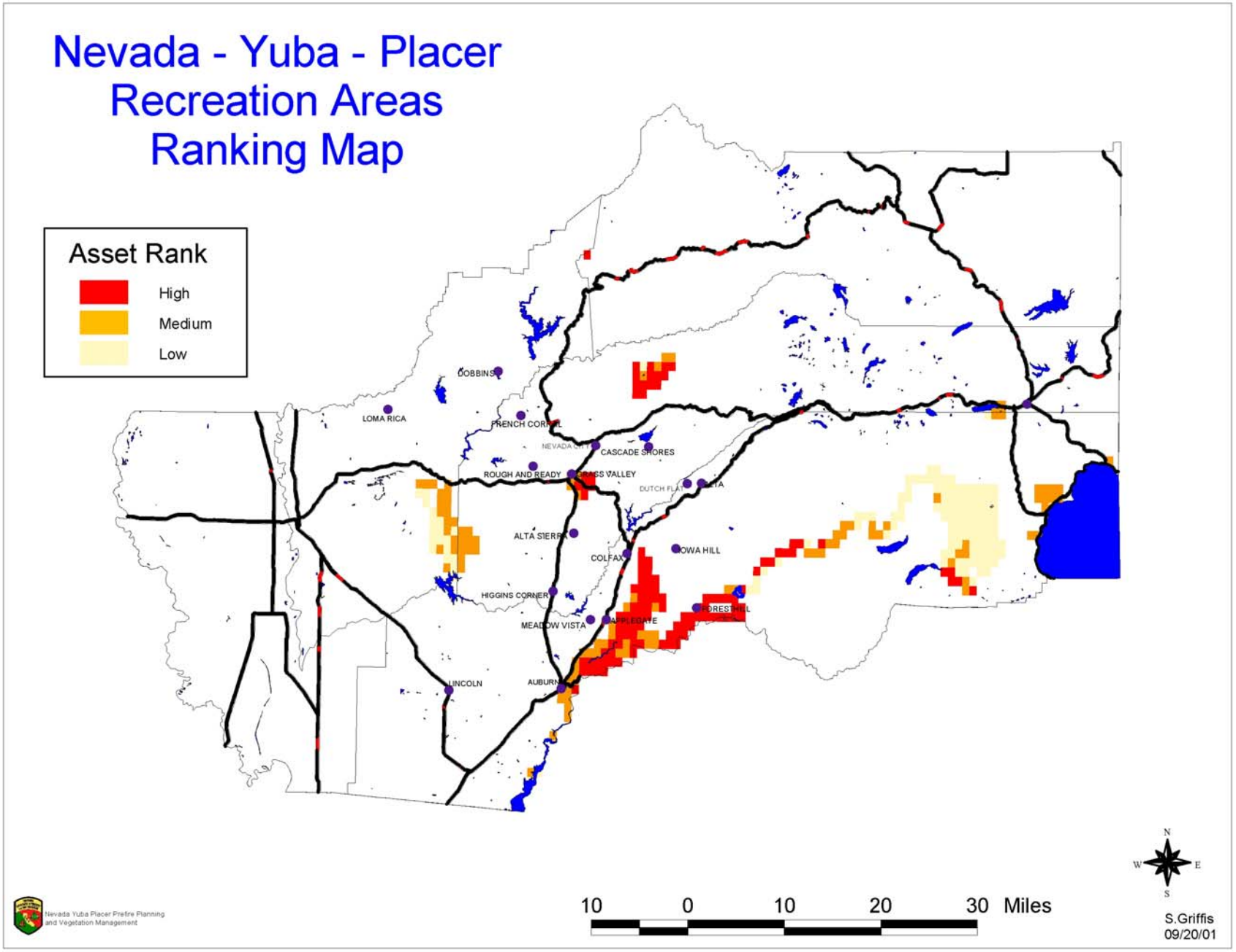
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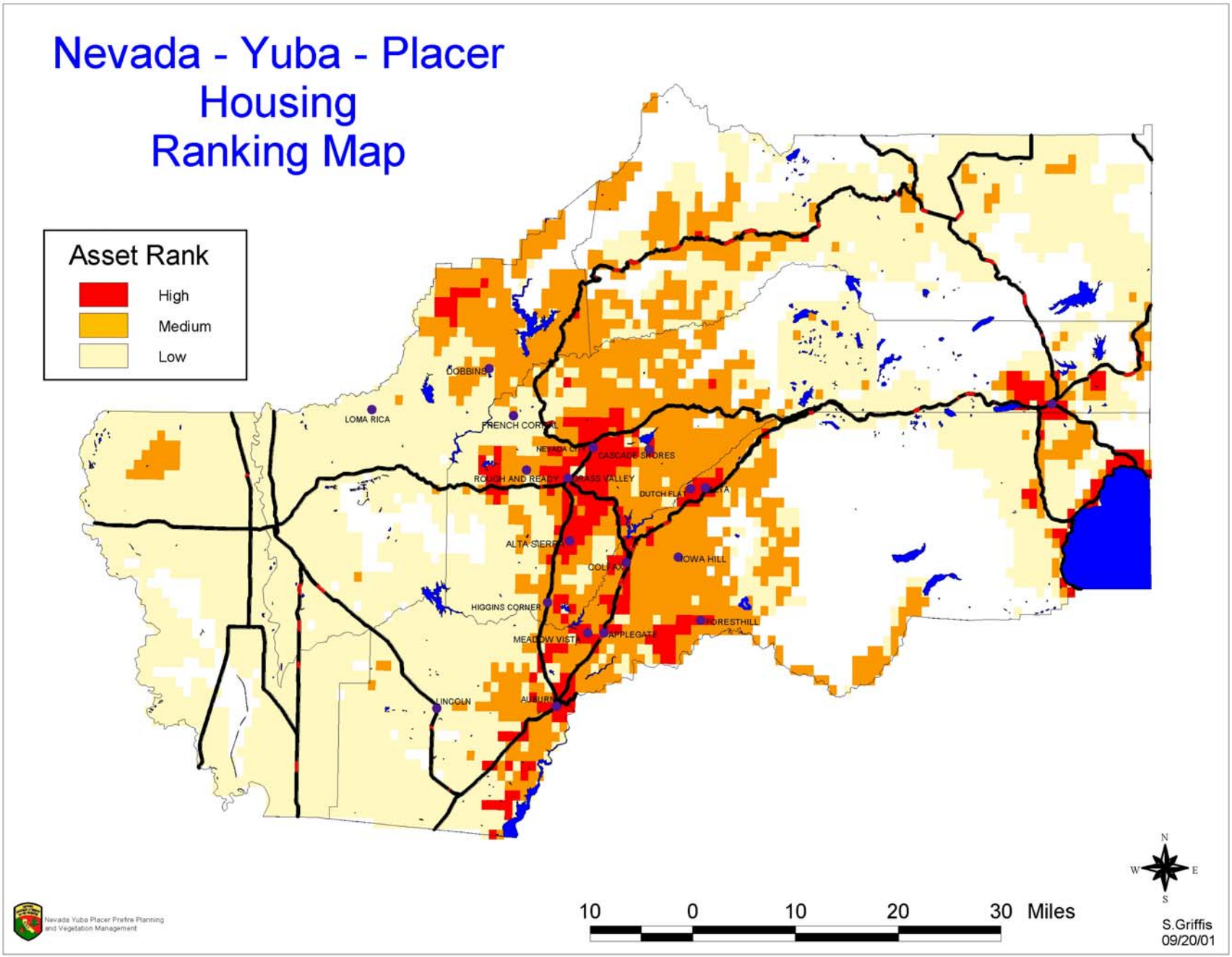
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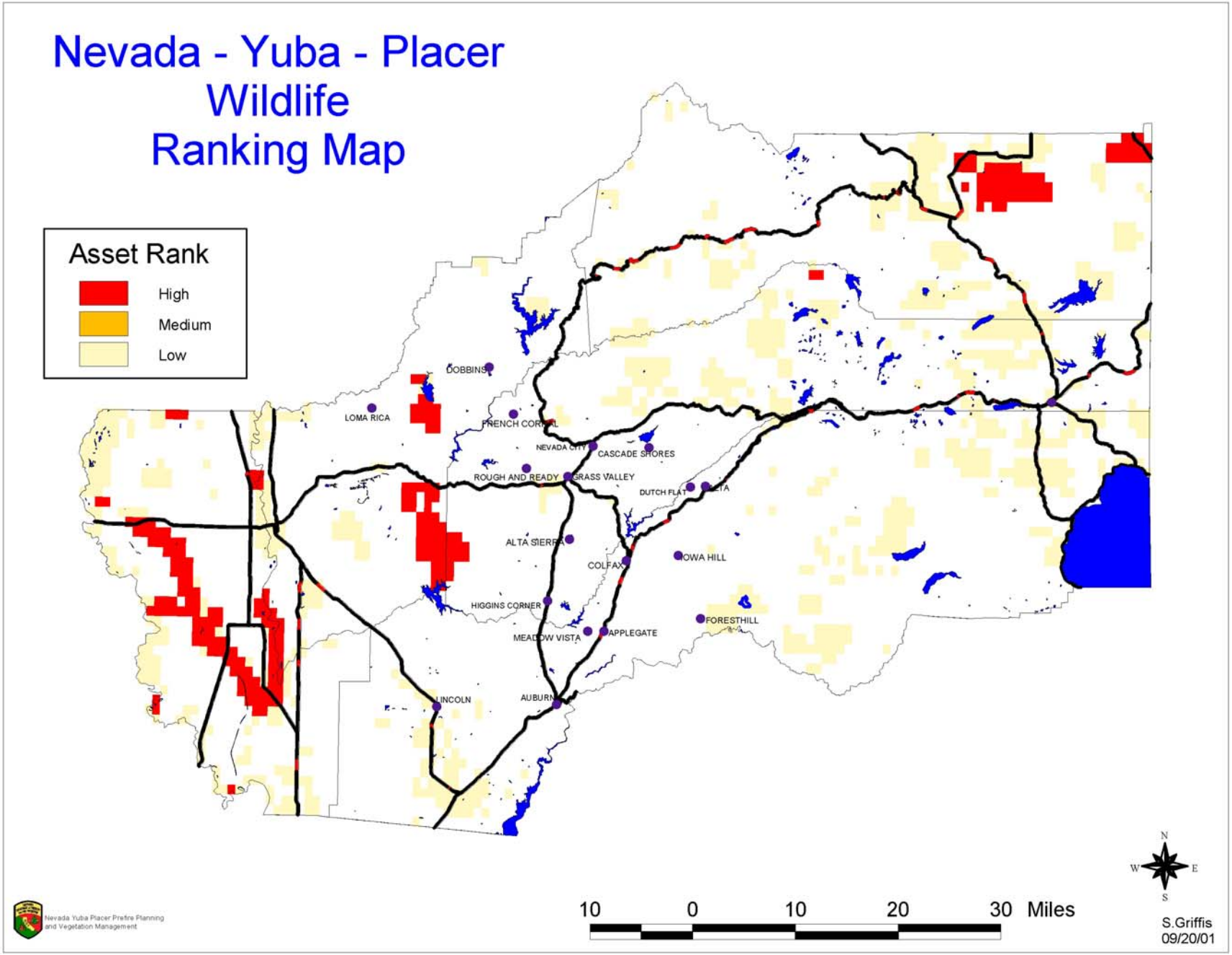
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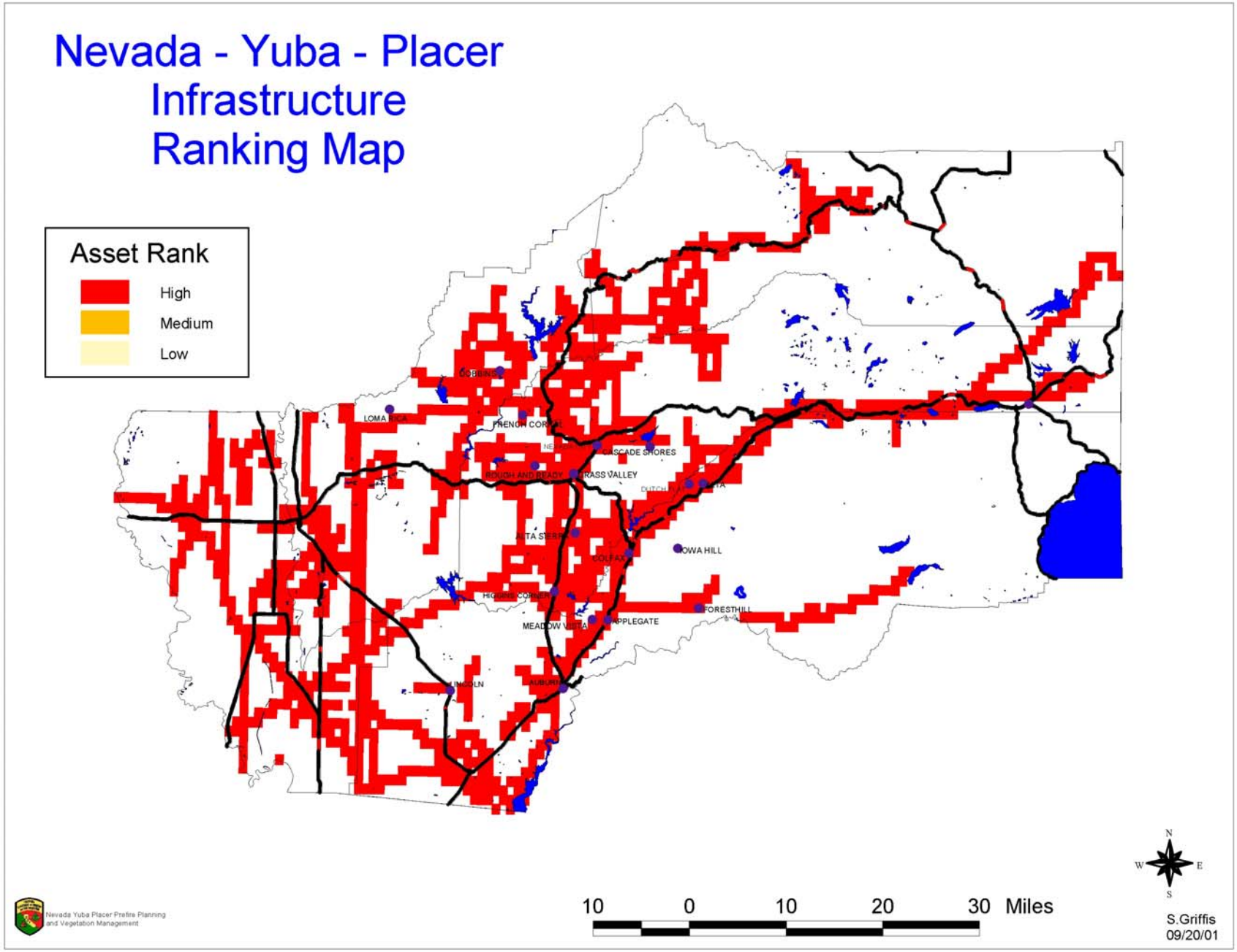
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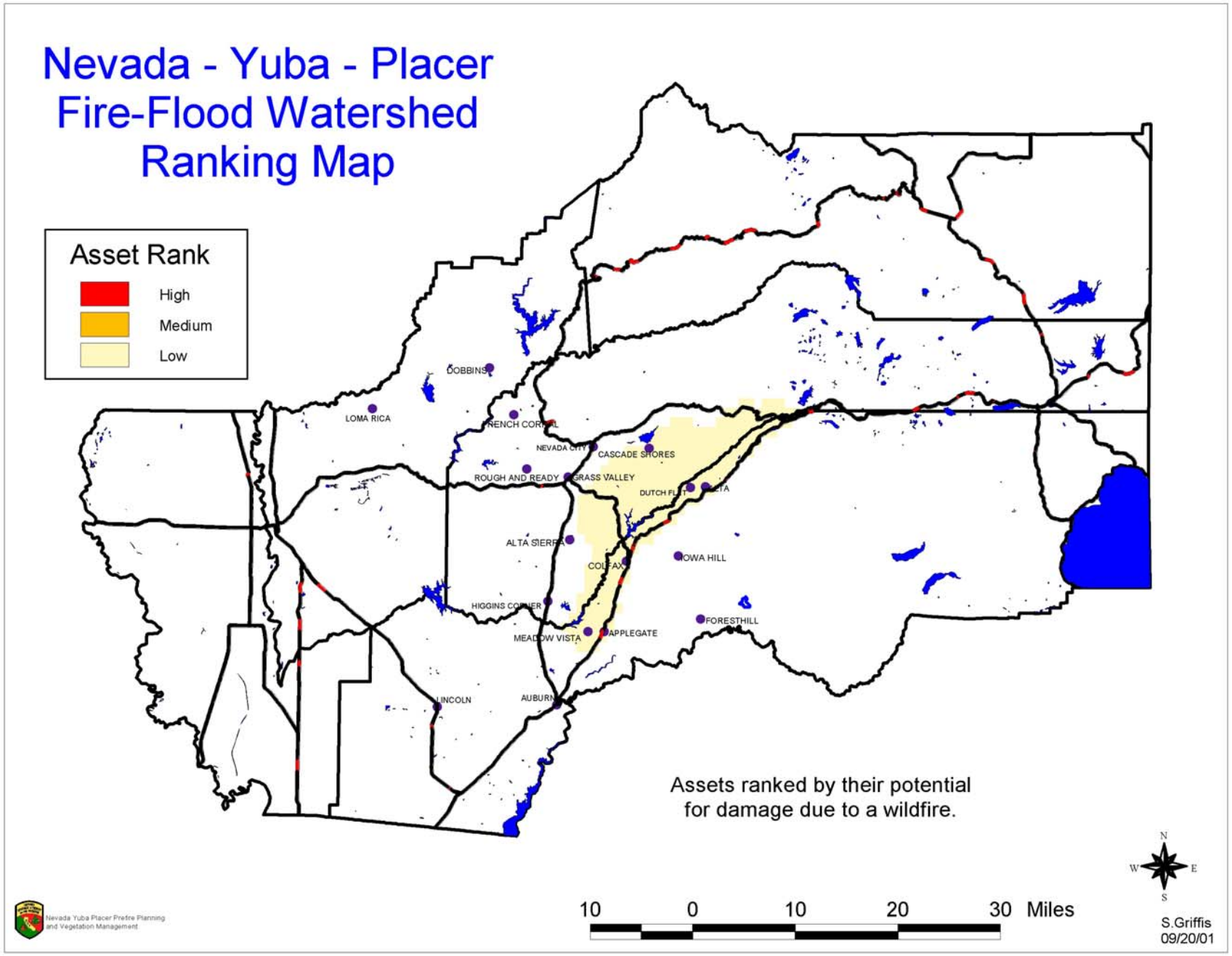
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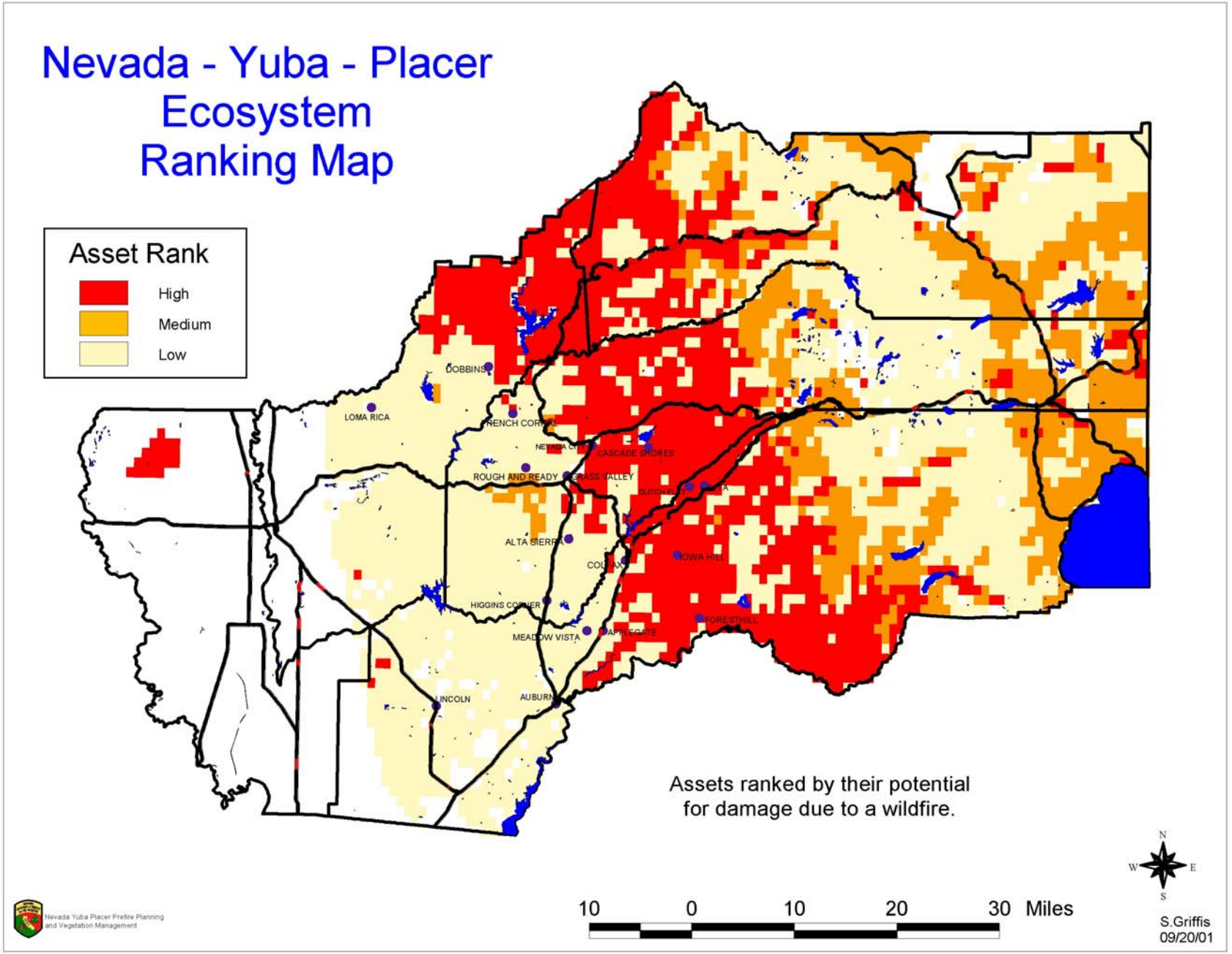
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